

At the end of my research I want to express
my deep thanks to my supervisors, Dr. David
Aronson and Mrs. Elizabeth A. A. for the
great interest they took in my work and the
encouragement and invaluable advice they gave me.

A DESCRIPTIVE STUDY OF THE TONES IN THE CHENG TU

It was by Professor Y. R. Chao's suggestion that

DIALECT (SZECHUAN, CHINA) AND THE INTONATION

of the dialect. I want to thank him for his kindness in

OF CERTAIN TYPES OF SENTENCES

and private conversations.

I also want to thank Mr. P. Linder for
his help over the use of the spectrograph.

By Mrs. J. Anthony for his help over the use of the
tape-repeater and other instruments, and Mr. A. Folkard
for making the prints of the kymographs and the spectro-
grams.

Nien-Chuang T. CHANG

張
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University Library for his permission to use the library.
In the Library Room I was able to get much reading
material.

Last, but not least, I want to thank my father
for his co-operation in making this study possible.

October, 1964.



P R E F A C E

At the end of my research I want to express my deep thanks to my supervisors, Mr. David Abercrombie and Mrs. Elizabeth Uldall, for the great interest they took in my work and the encouragement and invaluable advice they gave me throughout these years.

It was at Professor Y.R.Chao's suggestion that I took up the study of intonation from real conversation. I want to thank him for his kindness in advising me on various points through correspondence and private conversations.

I also want to thank Mr. P. Ladefoged for his help over the use of the spectrograph, Mr. J. Anthony for his help over the use of the tape-repeater and other instruments, and Mr. A.Folkarde for making the prints of the kymograms and the spectrograms.

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October, 1954.

LIST OF SYMBOLS

Vowels:

i	as in	雞 [dʒi]	chicken
e	" "	測 [tse]	to measure
a	" "	話 [xua]	speech
o	" "	樂 [lo]	joy
u	" "	苦 [ku]	bitter
ə	" "	生 [sən]	raw
y	" "	舉 [dʒy]	to lift

Diphthongs:

ei	as in	飛 [fei]	to fly
ai	" "	愛 [ɲai]	to love
au	" "	高 [gau]	tall
əu	" "	溝 [gəu]	moat
yi	" "	君 [dʒyin]	monarch
ye	" "	血 [ʃye]	blood
yo	" "	光 [yɔŋ]	fierce
ie	" "	接 [dzie]	to join
ia	" "	家 [dzia]	home
ua	" "	瓜 [gua]	melon
uə	" "	棍 [gʷən]	rod
ue	" "	國 [gue]	country

Triphthongs:

iaʊ	as in	求 [tʃiaʊ]	to beg
iaʊ	" "	驕 [dziaʊ]	proud
uai	" "	乖 [ɣuai]	cute
uei	" "	灰 [xuei]	dust

Consonants:

p	as in	怕	[^h pa]	to fear
t	"	他	[^h ta]	he
k	"	開	[^h kai]	to open
b	"	不	[^h bu]	not
d	"	到	[^h dau]	to arrive
g	"	狗	[^h gau]	dog
m	"	馬	[^h ma]	horse
n	"	年	[^h nien]	year
ŋ	"	愛	[^h ŋai]	to love
l	"	樓	[^h lau]	stairs
f	"	風	[^h fɔŋ]	wind
s	"	生	[^h sən]	raw
ʃ	"	手	[^h ʃəu]	hand
ʒ	"	肉	[^h ʒəu]	meat
r	"	兒	[^h r]	child
x	"	厚	[^h xəu]	thick
ts	"	猜	[^h tsai]	to guess
tʃ	"	清	[^h tʃin]	clear
dz	"	在	[^h dzai]	at
dʒ	"	真	[^h dʒən]	real

The transcription is a phonemic one. The values are as given in the I.P.A. Principles, except for the following:

[p], [t], [k], [ts], [tʃ] = aspirated
 [b], [d], [g], [dz], [dʒ] = unaspirated [p],
 [t], [k], [ts], [tʃ]
 [ʃ], [ʒ], [tʃ], [dʒ] before [i] and [y] = [tʃ],
 [ʒ], [tʃ], [dʒ]

[n] before [i] and [y] = [ɲ] .

[r] = [ɾ] when syllabic; when it is after [ʃ],
[ʒ], [tʃ], [dʒ] it is a fricative with strong
friction.

[i] = [ɪ] in [ai] and [ei], otherwise = [i]

[e] = [e_r] in [ei] ,

= [ɛ₁] in [ien] and [yen] , otherwise = [e]

[a] = [a₁] in [au], [ai] and when before [n],

= [a] when before [ŋ], or when final.

[o] = [o] when before [ŋ]

= [ɔ] when final

[u] = [ʊ] in [au] and [əu] , otherwise = [u].

[ə] = [ə-] in [əu],

= [ʌ] when before [ŋ] , otherwise = [ə]

The quality of vowels vary to some extent with the tones; in particular, opener varieties are generally used with the second and the fourth tones.

Tonal marks: [ˊa] = high-rising

[ˋa] = low-falling

[ˊ\a] = high-falling

[ˋva] = low-falling-rising

Illustrations.

Chapter I

Spectrograms (Fig. 1 - Fig. 130)

Fig. 1 - 4.00

Spectrograms (Fig. 131 - Fig. 130)

(Graphs plotted from spectrograms and
xymographs. (Fig. 1 - 130) follow the
respective tracings).

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INTRODUCTION.

No language is spoken on a monotone. When we speak the pitch of our voice is in continuous motion. The rise and fall of the pitch of the voice is always present. This variation of the voice pitch may be considered to be

(1) a feature of the sentence. It belongs to the sentence as a whole. When the variation of the voice pitch is thus applied to the whole sentence, it is called INTONATION. Any language that has this kind of variation of voice pitch is called an Intonation Language. English, for instance, is an intonation language. Suppose we take a simple sentence, "He's out", for an example. This can be said in a rising intonation or a falling intonation (all this I shall discuss later). In the first instance it means a question and in the second, a statement. Intonation, therefore, contributes a shade of meaning to the sentence by expressing the speaker's attitude or emotions while the significant or the fundamental meaning of the sentence remains the same.

/(2)

(2) a feature of the individual word.

It is an integral part of the word and is lexically significant. When the variation of the voice pitch is applied to single syllables or individual words it is called TONE. Any language that has this rise and fall of the voice pitch as the basic part of a word is a Tone Language. In other words, in a tone language minimal distinctions are found in the tones. The same syllable pronounced in two different tones would mean two completely different things. Chinese is a tone language, because every Chinese word has, in addition to its vowels and consonants, a tone of its own. For instance, in the particular dialect I am studying

[tʃin] spoken with a rising tone means "blue" and when spoken with a high-falling tone (these I shall discuss later) means "invite". Thus we see that the change of tone means also the change of the lexical meaning of the word.

In regard to Chinese, the following interesting questions naturally arise for those who are also acquainted with intonation languages:

(1) Does intonation exist in Chinese? Do Chinese speakers use intonation at all?

(2) If intonation does exist in Chinese, then what happens to the individual tone, which is one of the basic elements in the word? In other words, how does the intonation affect the tones? What is the relationship between the intonation and the tones?

These lead to the more fundamental questions:

(3) Does the individual tone always remain exactly the same whether it is spoken in isolation or in succession? Does the tone change if it follows or is followed by the same or another tone?

(4) If it does change when spoken in succession, if it no longer retains the value which it has when pronounced by itself, then what is the change like? How does it change?

The above questions are what I have been trying to work out in this thesis. I first dealt with the tones, trying to answer questions (3) and (4). Then I worked on their relationship with intonation, trying to answer questions (1) and (2).

In the Chinese language there are many different dialects. Each dialect has its separate set of tones. In order to make a careful study of tones and intonation I chose to work on the Chengtu dialect of Szechuan, this being the dialect I was
/brought

brought up with. My parents, my relatives, and most of my friends speak this dialect. My father, of whose speech I made a particular study in connection with intonation, was born and brought up in Chengtu. He speaks no other dialects.

Being a student of Phonetics, I have observed for several years the speech of my relatives and friends with the question of intonation and tones in mind. Two years ago I attempted a preliminary study along this line dealing with certain types of questions spoken in different moods and states of emotion. But as (1) I made up the questions myself and (2) I took down the intonation without the help of any instrument, the result did not appear very convincing, though in its limited scope it was satisfactory to myself. Therefore in my present study I started from actual conversation.

In studying the intonation I first recorded eight hours of conversation with my father. From the recordings I picked out sentences whose intonation can be grouped under various emotional states or attitudes. With the help of a swanee whistle¹
/and

-
1. A tin whistle with a stopper which can be adjusted to give the pitch desired. The sound produced is continuous like that of the human voice.

and the tape-repeater.¹ I noted down the intonation. Finally I checked the results on the spectrograph.²

In observing the tones and their changes, I first wrote down words of one syllable, and then phrases containing two or three syllables in all the possible combinations of tones. Both my father and myself read them aloud many times. Then I noted them down with the help of a swanee whistle and then checked the results on the kymograph and the spectrograph. It took much more time to sort out examples for the four-syllable-group than all the rest as the number of combinations amounts to 256. In fact, I had to resort to some Chinese novels in order to get a complete set of phrases containing four syllables.

-
1. This was invented by our Department. Two tape-recorders are joined in such a way that a particular passage on the tape of one recorder can be recorded on to the other and repeated as many times as required. For details please inquire at the Phonetics Department, Edinburgh University.
 2. See appendix.

CHAPTER I: TONES AND THEIR CHANGES

When a Chinese character is read aloud the sound produced consists of not only the consonants and the vowels but also a tone, because, as stated before, every Chinese word has a tone of its own. This tone, which is used in reading aloud a character in isolation, may be called the NAMING TONE, since it is as if we are giving that character a name. This tone is used when the word is uttered by itself, not in conjunction with other words.

A Chinese without any phonetic training would maintain that a Chinese word is always pronounced with its naming tone whether it is pronounced in isolation or otherwise, (i.e. whether it follows or is followed by another word of the same or another tone). But through careful observation it will be noticed that in a phrase or a sentence the naming tone is often replaced by another tone. The naming tone and those which take its place are ALLOTONES of one TONEME.* The toneme can be compared to the phoneme; just as a phoneme consists of a number of allophones, so a toneme consists of a number of allotones.* The Chinese who has had no phonetic training is unaware of and therefore unable to isolate the allotone used on a particular word in a phrase or sentence. This replacement of one tone by another, this interchange of allotones, is called TONE SANDHI†
/or

* See D.Jones, The Phoneme: Its Nature and Use, p.153 .

† See Y.R.Chao, Mandarin Primer, Vol. I, p.25.

or PERTURBATION.

Each tone has its own SHAPE or FEATURE; this consists of two elements, PITCH and COURSE.* By "pitch" I mean whether the tone is high or low or mid. By "course" I mean whether the tone rises or falls as the word is pronounced. If the voice pitch rises when pronouncing a word, then that word is said to have a RISING TONE. If the pitch falls, then it is a FALLING TONE. If the voice pitch remains unchanged, i.e., if it stays on the same level then it is a LEVEL TONE. If two rising tones exist in a language and one starts at a higher level than the other then one is called HIGH-RISING TONE and the other LOW-RISING. Likewise there are HIGH-FALLING, LOW-FALLING, MID-FALLING, HIGH-LEVEL, LOW-LEVEL, and MID-LEVEL, etc.

It is necessary to bear in mind that the pitch we are discussing here is relative and not absolute. It is not absolute like the pitch of a musical note, which has a definite frequency. A middle C is always a middle C whether it is sung by a man or a woman or a child. But the pitch we are dealing with here is the voice pitch of the individual when used in speech. It is relative in the sense that every
/individual

* In his Ph.D.thesis, "Phonetics of Pekingese" (1923), D.M.Beach calls them "height" and "direction".

individual has his or her own range of voice pitch. One man may have a high-pitched voice and another a low-pitched voice. The high-rising tone in the second man's speech may in actual frequency be the same as the low-rising tone in the first man's speech; yet we shall still call the first man's a low-rising and the second man's a high-rising tone. What we deal with is the voice pitch of an individual in relation to all the different pitches the same individual uses in his speech. Therefore it is the relative and not the absolute pitch that is of importance.

PART I: MONOSYLLABLES.

There are four naming tones in the Chengtu dialect of Szechuan, China. If we divide the pitch of an individual's voice into (1) high, (2) mid-high, (3) mid, (4) mid-low and (5) low, a description of the four naming tones will then be as follows:

1. Tone I, High-rising----it starts between mid-high and mid and rises to high, e.g. 清 [tʰin] , (clear).
2. Tone II, Low-falling----it starts somewhere lower than mid and ends between mid-low and low. e.g. 晴 [tʰin] (fine, when referring to weather).
3. Tone III, High-falling----it starts about mid-high and falls to somewhere a little higher than low. Often there is a very slight rise at the start but it is so slight that it can hardly be noticed. Thus we call it high-falling instead of high-rising-falling. e.g. 請 [tʰin] (invite).
4. Tone IV, Low-falling-rising---- it starts about mid-low and falls to low and then rises ending at about mid or higher. e.g. 慶 [tʰin] (to celebrate). Often the fall reaches so
/low

low a point that the voice
is almost creaky.

Using Y.R.Chao's method* of showing Mandarin tones, we may represent approximately the four naming tones of the Chengtu dialect as follows. The lines representing the tones go from left to right. The vertical line is a reference line and is divided into high, mid-high, mid, mid-low and low.

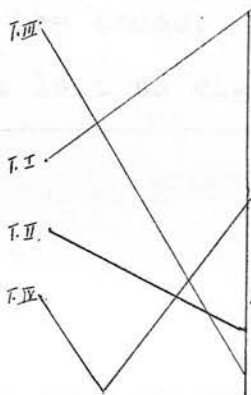
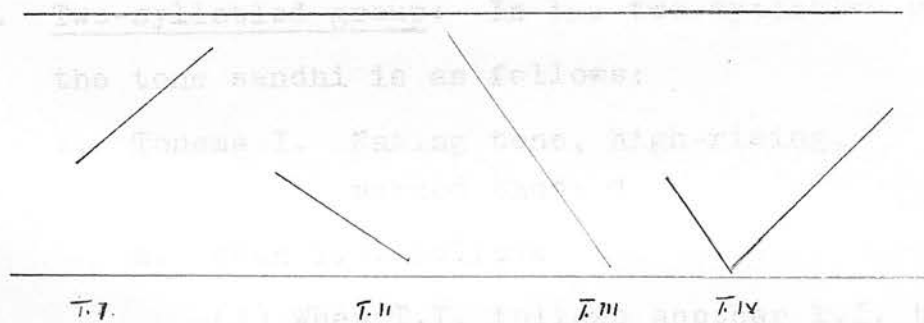


Fig.1 and Fig. 2 are the spectrograms of the four naming tones of 清, 晴, 請, 慶 [t_{in}], [t_{in}], [$\backslash t_{in}$], [$\backslash t_{in}$] (clear, fine, to invite, to celebrate), as spoken by myself and by my father. Fig. 3 is the spectrogram of the four naming tones of 科, 殼, 可, 課 [k_o], [k_o], [$\backslash k_o$], [$\backslash k_o$] (item, shell, can, lesson). Fig. 4 is that of 孤, 骨, 故, 故 [g_u], [g_u], [$\backslash g_u$], [$\backslash g_u$] (alone, bone, ancient, former). Figs. g_1 , g_2 , g_3 , are the respective graphs plotted from them. Fig. k_1 , is the kymograph tracings 妻, 騎, 起, 氣 [t_i], [t_i], [$\backslash t_i$], [$\backslash t_i$] (wife, to ride, to get up, /vapour).

* Y.R.Chao: "A System of Tone Letters," Le Maître Phonétique 3rd Series, XLV, (April-June, 1930), Pp.24-27.

vapour). Fig. g₄ is the graph plotted from the kymograms, Fig. k₂ is the kymograph tracings of 清髮小寿 [tʃin][fa][\jau][vəu] (clear, hair, small, longevity) and Fig. g₅ is the graph plotted from them.

Another way of showing the approximate relative pitches of the naming tones is as follows. The space between the horizontal lines represents the voice range of the individual, the other lines show the shapes of the tones. The lines showing the pitches go from left to right.



Figs. 5, a and b, and 6 are respectively the spectrograms of the naming tones of 飛, 肥, 匪, 費 [fei], [fɛi], [\fɛi], [vɛi] (fly, fat, bandits, expense), and 低, 滴, 底, 地 [di], [dɛi], [\dɛi], [vdɛi] (low, drop, bottom, and floor).

PART II: TWO-, THREE-, AND FOUR-SYLLABLED GROUP.

In representing the tone sandhi in the two-, three-, and four-syllabled groups, I shall use Y.R.Chao's notation with the vertical line. But in the examples themselves I shall omit the vertical line and put the tonal mark in front of the phonetic transcription of each syllable. To avoid confusion, I shall do this only for the first example of each set.

A. Two-syllabled group: In the two-syllabled group the tone sandhi is as follows:

1. Toneme I. Naming tone, high-rising, marked thus: ˥

a. When T.I. follows

(1) When T.I. follows another T.I. then it becomes a mid-level tone, marked thus: ˨˨˩

e.g. T.I + T.I

中 1: 11→1˨˨˩ cf 45	功夫 [˥gɔŋ - ˥fu]	time
	先生 [˥ɕien sən]	sir
	東西 [˥dɔŋ ˥ɕi]	thing
	親姑 [˥tɕin gu]	aunt (Fig.7)
	低飛 [˥di fei]	flying low (Fig.8)
	清溪 [˥tɕin tɕi]	clear stream (Fig.k3a, & Fig. 86)

(2) When T.I follows T.II, it becomes a level /tone,

tone, somewhere between mid and
mid-low,

e.g. T.II + T.I

中2: ㄅ→ㄅ cf. 中13	國家	[.gue -dzia]	nation
	籬笆	[li ba]	fence (Fig.9)
	曹操	[tsau tsau]	Ts'ao Ts'ao, a famous general in the time of the Three King- doms.(Fig.10).
	髮妻	[fa tʃi]	a man's first wife. (Fig.k _{4a} & Fig.g ₇)
	學生	[yo sən]	pupil
	台灣	[tai uan]	Formosa

(3) When T.I. follows T.III, it also becomes
a level tone somewhere between mid-low
and mid,

e.g. T.III + T.I

中3: ㄅ→ㄅ cf. 中21	始終	[ʃr -dʒoŋ]	beginning and end
	廣東	[guan doŋ]	Kwangtung
	草菇	[tsau gu]	mushroom (Fig.11)
	睡衣	[tʃin i]	pyjamas
	耳科	[r ko]	ear specialist (Fig.12)
	小溪	[ɕiau tʃi]	small stream (Fig.k _{5a} & Fig.g ₈)

(4) When T.I. follows T.IV, it retains its original
/course

course, though it does not rise quite as high as when it is pronounced in isolation,

e.g. T.IV + T.I

	地瓜 [di 'gua]	a kind of fruit. (Fig.13)
	舊書 [dziau 'u]	secondhand books (Fig.k _{7a} & Fig. g ₁₀)
中4: 11: 11	受欺 [ʃau tʃi]	being oppressed (Fig.k _{6a} & Fig.g ₉)
	麵包 [mien hau]	bread
	印光 [in 'guan]	monk's name (Fig.k _{7b} & Fig.g ₁₀)
	地方 [di ʃaŋ]	place (Fig.k _{7c} & Fig.g ₁₀)

But when Toneme I is specially emphasised, then it retains its rising course no matter which toneme precedes it:

e.g. 抽籤 [tʃau tʃien] (T.I+T.I) to draw lots (Fig.14)
買書 [mai 'u] (T.III+T.I) to buy books

b. When T.I. precedes:

- (1) When T.I. precedes another T.I. it remains high-rising. It starts at the same point as when it is pronounced in isolation but does not

/end

end as high

e.g. T.I + T.I

中5: 11 → 11

see 中1

cf. 中1 (2) when T.I. precedes T.II or T.III
or T.IV then it starts from a point
slightly lower than when it is
pronounced in isolation and also
does not rise as high.

e.g. T.I + T.II

中6: 11: 11

cf. 中9

中國 [ʈdʒoŋ ˌgue]

China

智識 [dʒr ʃr]

knowledge

巫峽 [u ʃia]

Yangtze gorge

孤骨 [gu gu]

deserted bones
(Fig.15)

親戚 [tʃin tʃi]

relatives
(Fig.k_{3b} &
Fig.g₆)

e.g. T.I + T.III

飛蠱 [ʈfei ˌgu]

poisonous insect
(Fig.16)

根本 [gan bən]

originally
(Fig.17)

香港 [ʃiaŋ gaŋ]

Hongkong

親啟 [tʃin tʃi]

to be opened by
the receiver
himself.
(Fig.k_{3c} &
Fig.g₆)

中7: 1V: 1V

cf. 中17

身體 [ʃən ti]

body

多少 [do ʃau]

amount

save /e.g.

e.g. T.I + T.IV

宗教 [dʒoŋ ɿdziau]

religion
(Fig.k_{10a} &
Fig.g₁₃)

相信 [ʃian ʃin]

to believe

中8: 1 1 → 1 1

cf. 中25

輕重 [tʃin dʒoŋ]

weight
(Fig.k_{10b} &
Fig.13)

新舊 [ʃin dʒiau]

new and old
(Fig.18)

氫氣 [tʃin tʃi]

hydrogen
(Fig.k_{3d} &
Fig.g₆)

豬肺 [dʒu fei]

pig's lungs
(Fig.19)

2. Toneme II, naming tone, low-falling,
marked thus: ˩

a. When T.II follows:

(1) When T.II follows T.I or T.III
or T.IV it retains its original

shape but starts lower than the

(2) When T.II follows another T.II, the

starting point of its naming

tone and also falls lower.

e.g. T.I + T.II

see 中6

中9: 1 1 : 1 1
cf. 中6e.g. T.III + T.II

我們 [˩ ɲo .mən]

we

美國 [mei ɲue]

U.S.A. drops
(Fig.23)

野蠻 [ie mən]

savage
to be fined at

中10: ˩ ˩ → ˩ ˩

cf. 中22

/a small flag
(Fig.27)

小旗 [ɿau tʃi]

a small flag
(Fig.k_{5b} &
Fig.g₈)

請求 [tʃin tʃiəu]

to request
(Fig.20)

好棋 [xau tʃi]

good chess-
playing
(Fig.21)

e.g. T.IV + T.II

配角 [pei ɣo]

an unimportant
character in a
play
(Fig.k_{8a} &
Fig.g₁₁)

中11: ✓ ↓ ↓ ↓ ↓

cf. 中30

橡皮 [ɿan pi]

rubber
(Fig.k_{8b} &
Fig.g₁₁)

乱說 [luan ʃo]

talking nonsense
(Fig.k_{8c} &
Fig.g₁₁)

地球 [di tʃiəu]

the earth

受訖 [ʃəu tʃi]

all received
(Fig.k_{6b} &
Fig.g₉)

(2) When T.II follows another T.II, the shape also remains the same. It starts at about the same point as the naming tone but does not fall so low.

e.g. T.II + T.II

髮夾 [fa dzia]

hair clips
(Fig.22)

中12a: ✓ ↓ ↓ ↓ ↓

cf. 中14

八滴 [ba di]

eight drops
(Fig.23)

罰棋 [fa tʃi]

to be fined at
chess
(Fig.k_{4b} &
Fig.g₇)

/completely

完全 [uan tʃyen]

completely

文明 [uən miŋ]

civilization

(3) When a syllable of T.II is reduplicated

e.g. as a form of address or in baby

talk, then the second syllable is pronounced
in a mid-level tone.e.g. T.II + T.II

爸爸 [ba ba]

father
(Fig.24)

中12b: JJ → J-1

叔叔 [ʃu ʃu]

uncle, father's
younger brother

牛牛 [niəu niəu]

ox

b. When T.II precedes another toneme

(including another T.II) it retains its

original low-fall. It starts a little

higher than the naming tone and does not

fall so low.

中13: J7 → J-1

e.g. T.II + T.I

cf. 中2

see 中2

中14: JJ: JJ

T.II + T.II

cf. 中12a

see 中12a

T.II + T.III

糖菓 [taŋ ʅgo]

sweets
(Fig.25)

八股 [ba gu]

"eight-legged
essay", of the old
examination time.
(Fig.26)

中15: JV: JV

小中18

發啟 [fa tʃi]

to found
(Fig.k_{4c} &
Fig.g₇)

朋友 [pəŋ iəu]

friends

白臉 [be lien]

white face, a term
in the Chin. opera

/T.II + T.IV

T.II + T.IV

中16: ㄟ → ㄟ cf. 中26	肥皂	[fei dzau]	soap
	陶器	[tau tʃi]	pottery
	發氣	[fa tʃi]	to be angry (Fig.k _{4d} & Fig.g ₇)
	習慣	[ʃi quan]	habit (Fig.k _{11a} & Fig.g ₁₄)
	和尚	[xo ʃaŋ]	monk (Fig.k _{11b} & Fig.g ₁₄)
	時候	[ʃr xəu]	time

3. Toneme III, naming tone, high falling,
marked thus: ㄟ

a. When T.III follows

(1) When T.III follows another toneme

(including another T.III), it loses the very slight rise which sometimes appears in the naming tone. Also it starts at a lower point than the e.g. as a form of address or in baby talk, naming tone and does not fall so low. It only reaches mid-low

e.g. T.I + T.III

中17: ㄟ ㄟ
cf. 中7

see 中7

T.II + T.III

中18: ㄟ ㄟ
cf. 中15

see 中15

T.III + T.III

小丑 [ʃiau \tʃəu]

a clown

草匪 [tsau fei]

bandits
(Fig.27)

中19: ㄟ ㄟ → ㄟ
cf. 中23

/torch

火把	[xo ba]	torch (Fig.28)
鬼眼	[quei ien]	a person who can see supernatural things
小鑄	[ɕiau tɕi]	a small chisel (Fig.k _{5c} & Fig.g ₈)
整本	[dʒən bən]	whole volume

T.IV + T.III

父母	[vfu \mu]	parents
下等	[ɕia dən]	low class (Fig.29)
上海	[ɕaŋ xai]	Shanghai (Fig.30)
冒險	[mau ɕien]	to run a risk
考啟	[kəu tɕi]	proper name (Fig.k _{6c} & Fig.g ₉)
利斧	[li ɕu]	a sharp axe (Fig.k ₉ & Fig.g ₁₂)

中₂₀: V: V
cf. 中₃₁

(2) When a syllable of T.III is reduplicated,
e.g. as a form of address or in baby talk,
the second syllable is then spoken in a
low-falling tone.

e.g.

姊姊	[dzie dzie]	elder sister
嫂嫂	[sau sau]	elder sister-in-law.
宝宝	[bau bau]	baby
馬馬	[ma ma]	gee-gee

b. When T.III precedes another toneme
/(including

(including another T.III), then it becomes a level tone between mid-high and high, marked thus: 7

中21: √ 1 → 7 1
cf. 中3

e.g. T.III + T.I

see 中3

中22: √ J → 7 J
cf. 中10

T.III + T.II

see 中10

中23: √ V → 7 V
cf. 中19

T.III + T.III

see 中19

T.III + T.IV

好点 [xau tɕu]

good points
(Fig.32,
Fig.k₁₂,
Fig.8₁₅)

小气 [ɕiau tɕi]

stingy
(Fig.k_{5d} &
Fig.8₈)

中24: √ M → 7 J
cf. 中27

小费 [ɕiau fei]

tip
(Fig.33)

恐怕 [kɔŋ pa]

perhaps

写信 [ɕie ɕin]

to write a
letter

早上 [dzau ɕaŋ]

morning

4. Toneme IV, naming tone, low-falling-rising, marked thus

a. When T.IV follows

(1) When T.IV follows another toneme

(including another T.IV) it becomes a very low-falling tone arrested by a glottal stop and loses the final rise which exists in its naming tone.

The glottal stop makes it quite

distinct from Toneme II, which is low-falling

falling but starts at a slightly higher point than the present toneme we are discussing. We shall call it a low-low-falling tone, marked thus: ˩

中25: ˩˩ → ˩˩ e.g. T.I + T.IV
cf. 中8

see 中8

中26: ˩˩ → ˩˩ T.II + T.IV
cf. 中16

see 中16

中27: ˩˩ → ˩˩ T.III + T.IV
cf. 中24

see 中24

T.IV + T.IV

究竟 [˩dziau ˩dzin]

eventually
(Fig.k₁₃ &
Fig.g₁₆)

孝順 [˩iau ˩uən]

filial
(Fig.34,
Fig.k₁₅ &
Fig.g₁₆)

中28a: ˩˩ → ˩˩
cf. 中32

二弟 [r di]

second younger
brother
(Fig.35)

壽器 [˩əu tʃi]

coffin
(Fig. k_{6d} &
Fig. g₉)

運氣 [yin tʃi]

luck

氣運 [tʃi yin]

fortune

(2) When T.IV is reduplicated, e.g. as in baby talk or as a form of address or as an adverb of manner, then the second /syllable

syllable is spoken with a mid-level tone

e.g.

中28b: ✓11→11

太太 [tai tai]

Mrs.
(Fig.35)

弟弟 [di di]

younger brother

慢慢 [man man]

slowly, slowly

- B. When T.IV precedes another toneme it retains the same shape as the naming tone but its starting point is lower, the dip is lower, and the end rising is not as high.

e.g. T.IV + T.I

中29: ✓11:✓11

see 中4

T.IV + T.II

中30: ✓11:✓11

see 中11

T.IV + T.III

中31: ✓1V:✓1V

see 中20a

T.IV + T.IV

中32: ✓11→11

see 中28a

But when T.IV is specially emphasised then even when it follows another toneme, it remains low-falling-rising

e.g.

吃飯 [tʃr fan]

eating

睡覺 [ʃuei dziau]

to sleep

5. When a syllable is not stressed (by stress

I mean a reinforced abdominal pulse occurring

/on

on a syllable), as it often happens with the "particles", it loses its tonal behaviour, i.e., it is so short that we cannot distinguish whether it is going up or down. In such cases we shall call it a NEUTRAL TONE, marked thus: .|

The pitch level of the neutral tone is decided by the toneme preceding it. It is high when preceded by T.I or T.III but mid when preceded by T.II or T.IV,

e.g.

他的 [ˈtaːˈdi] his
(Fig.37)

白的 [ˌbeːˈdi] white
(Fig.38)

鬼的 [ˈɣueiˈdi] ghost's
(Fig.39)

怪的 [ˌɣuaiˈdi] ugly
(Fig.40)

	I	II	III	IV
I				
II				
III				
IV				

From the above we reach the following conclusions for the two-syllabled group:

1. Toneme I is susceptible to change when following another tone; it becomes a mid-level tone. Reduplication makes no difference to the change. But when it follows Toneme IV then it remains high-rising.
2. Toneme II remains more or less the same, i.e., low-falling, except when reduplicated. Then it becomes a mid-level tone.
3. Toneme III is susceptible to change when preceding another toneme. It becomes a high-level tone. When it is reduplicated then it becomes a low-falling tone.
4. Toneme IV is susceptible to change when following another toneme. It becomes a very low fall and ends with a glottal stop. But when it is reduplicated then it becomes a mid-level tone.

	I 1	II J	III V	IV 1
I 1	11	1J	1V	11
II J	J1	JJ	JV	JJ
III V	71	7J	7V	7J
IV 1	11	1J	1V	1J

B. Three-syllabled group: In the three-syllabled group the tone sandhi is as follows:

T.I + I + I: The 1st syllable remains high-rising.

111 → 1-1

The 2nd syllable is level, but

starts lower, and sometimes has a very slight fall due to the fact that

The 3rd syllable is even lower and is level.

e.g.

三鮮湯 [san - syen - tan] a kind of soup (Fig.41)

星加坡 [sin dzia po] Singapore (Fig.42)

蘇東坡 [su dong po] a famous poet of the Sung Dynasty

張天師 [dzan tien ss] head of the Taoist sect

T.I + I + II: The 1st syllable remains high-rising.

11V → 1-1

The second syllable becomes mid-level.

The 3rd syllable remains low-falling

e.g.

東廂房 [dong - siang - fan] room on the east wing (Fig.43)

梳妝檯 [su - dzuan - tai] dressing table

飛機場 [fei dzi tjan] aerodrome (Fig.44)

香蕉皮 [siang dziau pi] banana skin.

T.I + I + III: The 1st syllable remains high-rising.

11V → 1-1V

The 2nd syllable becomes mid-level

/and

and sometimes has a very slight fall.

The 3rd syllable remains high-falling.

e.g.

花生米 [xua - sən \ mi] peanuts

蜘蛛網 [dʒr dʒu uaŋ] spider's web
(Fig.45)

鸡腰果 [dʒi iau ɣo] cashew nuts
(Fig.46)

T.I + I + IV: The 1st syllable remains high-rising.

111 → 111 The 2nd becomes mid-level.

The 3rd becomes a low-low-falling.

e.g.

穿衣鏡 [tʃuan - i - dʒin] dressing mirror

青山道 [tʃin ʃan dau] Green Hill Road (Fig.47)

山東話 [ʃan doŋ xua] Shantung dialect

金箍棒 [dʒin ku baŋ] golden-topped rod
(Fig.48)

T.I + II + I: The 1st syllable remains high-rising.

111 → 111 The 2nd syllable remains low-falling.

The 3rd becomes mid-level.

e.g. 科學家 [kʰo ʃyo - dʒia] scientist
(Fig. 50)

椒麻鸡 [dʒiau ma dʒi] peppered chicken

靜宮 [tʃin iŋ ɣoŋ] name of a temple in Szechuan
(Fig.49)

音樂家 [iŋ ɣo dʒia] musician

T.I + II + II: The 1st syllable remains high-rising.

111: 111 The 2nd and the 3rd remain low-falling,
/the

the 3rd starts a little lower than
the 2nd.

e.g.

陰曆年	[ʔiŋ ˥ li ˥ nien]	lunar year
西洋人	[ʃi ˥ iŋ ˥ ʒən]	Westerners
花蝴蝶	[xua ˥ fu ˥ die]	spotted butterfly (Fig.51)
三層樓	[san ˥ ʃən ˥ lau]	three-storeyed

T.I + II + III: The 1st syllable remains high-rising.

1 ˥ ˥ ˥

The 2nd remains low-falling.

The 3rd remains high-falling.

e.g. 封神榜 [ʃən ˥ ʃən ˥ ɸan] name of a novel (Fig.52) |

參謀長 [tsan ˥ mau ˥ ʒan] chief of staff |

英國狗 [iŋ ˥ ɸue ˥ ɸau] English dog |

T.I + II + IV: The 1st syllable remains high-rising.

1 ˥ ˥ ˥

The 2nd remains low-falling.

The 3rd becomes a low-low-falling.

e.g.

青白菜 [tɕin ˥ ˥ be ˥ tsai] cabbage (Fig.53) |

基督教 [dʒi ˥ du ˥ dʒiaw] Christianity |

西遊記 [ʃi ˥ iəu ˥ dʒi] "Monkey," a novel |

鳴毛雞 [dʒi ˥ mau ˥ dʒien] shuttlecock |

T.I + III + I: The 1st syllable remains high-rising.

1 ˥ ˥ ˥

The 2nd remains high-falling but does not
fall as low as the naming tone; it ends

/at

at about mid-high, marked thus: ˊ

The 3rd becomes mid-level.

- e.g.
- | | |
|-----------------------|-------------------------------|
| 資本家 [ˊdʌz ˊbən -dʒia] | capitalist
(Fig.54) |
| 香港衫 [ˊʃaŋ ɡaŋ san] | Hongkong
shirt
(Fig.55) |
| 新雨衣 [ˊŋ y i] | new raincoat |
| 丁老師 [dɪŋ lau ss] | Teacher
Mr. Ting |

T.I + III + II: The 1st syllable remains high-rising.

ˊˋˋ ⇒ ˊˋˋ

The 2nd falls from high to mid-high.

The 3rd remains low-falling.

e.g.

- | | |
|-----------------------|--------------------------------------|
| 吹火筒 [tʃuei ˊxo ˋtoŋ] | rod used to
blow fire
(Fig.56) |
| 三表叔 [san biau ˋʃu] | third uncle
(Fig.57) |
| 吹水壺 [tʃuei ˋʃuei ˋfu] | pot for water
when ironing |
| 金耳環 [dʒin r xuan] | gold earring |

T.I + III + III: The 1st syllable remains high-rising.

ˊˋˋ ⇒ ˊˋˋ

The 2nd falls from high to mid-high.

The 3rd starts slightly lower than
the 2nd and falls to low.

e.g.

- | | |
|------------------------|---------------------------------|
| 三小姐 [ˊsan ˋʃiau ˋdʒie] | third young
lady
(Fig.58) |
| 公使館 [ɡoŋ ˋʃr ɡuan] | embassy
(Fig.59) |
| 吹鼓手 [tʃuei ˋɡu ˋʃu] | bandman |
| 新雨傘 [ˋŋ y san] | new umbrella |

T.I + III + IV: The 1st syllable remains high-rising.

ˊˋˋ ⇒ ˊˋˋ

/The

The 2nd falls from high to mid-high.

The 3rd becomes low-low-falling.

e.g. 天主教 [ˈtʰien˥˩ dʒu˥˩ dziau˥˩] Catholicism
(Fig.60)

望遠鏡 [tʰien li dʒin] binoculars
(Fig.61)

揜手麵 [tʰau ʃəu mien] noodles in
soup

T.I + IV + I: The 1st syllable remains high-rising.

111 → 111

The 2nd becomes a low level tone,

marked thus: ˩

The 3rd becomes a mid-level.

e.g. 清道夫 [tʰin˥˩ dau˥˩ fu˥˩] scavenger

轟炸機 [xɔŋ dʒa dʒi] a bomber
(Fig.62)

三字經 [san dʒɛ dʒin] "the Trimetrical
Classic"

T.I + IV + II: The 1st syllable remains high-rising.

111 → 111

The 2nd becomes low-level.

The 3rd remains a low-falling tone.

e.g. 單單袍 [dan˥˩ dzau˥˩ pau˥˩] a thin dustcoat

三舅爺 [san dʒiau ie] the third grand-
uncle

工部局 [gɔŋ bu dʒy] the Municipal
Council
(Fig.63)

T.I + IV + III: The 1st syllable remains high-rising.

111 → 111

The 2nd becomes low-level.

The 3rd remains a high-falling tone
though it does not fall quite as low
as the naming tone.

e.g.

/eau-de-Cologne

花露水 [xua lu \ uei] eau-de-Cologne

荒唐鬼 [xuan tang guei] a careless devil

開步走 [kai bu 'dzau] to march

T.I + IV + IV: The 1st syllable remains high-rising.

1 1 1 → 1 1 1

The 2nd becomes low-level.

The 3rd becomes low-low-falling.

e.g.

招待會 [dzau dai xuei] reception party
(Fig. 64)

新被櫃 [ŋi bei guei] a new cupboard
for storing
blankets

汪弄正 [uan loŋ dzən] Officer Wang

T.II + I + III: The 1st syllable remains low-falling.

1 1 1 → 1 1 1

The 2nd remains high-rising.

The 3rd remains high-falling.

e.g.

花露水 [xua lu \ uei] eau-de-Cologne

圖書館 [tu ju \ juan] library
(Fig. 69)

長生果 [tʃən san ʒo] peanuts
(Fig. 70)

T.II + I + IV: The 1st remains low-falling.

1 1 1 → 1 1 1

The 2nd remains high-rising.

The 3rd

T.II + I + I: The 1st syllable remains low-falling.

√11 → √11

The 2nd remains high-rising.

The 3rd becomes mid-level.

e.g. 留聲機 [liəu[˥]ʃən^{˥˥}-dʒi]

gramophone
(Fig.65)

黃包車 [xuaŋ bau tʃe]

a ricksha

羊癩瘋 [iaŋ dien fəŋ]

fits
(Fig.66)

T.II + I + II: The 1st syllable remains low-falling.

√11: √11

The 2nd remains high-rising.

The 3rd, low-falling

e.g.

雷峰塔 [luei[˥]ʃəŋ^{˥˥}-ta]

a pagoda in
Hangchow
(Fig.67)

魚肝油 [y gan iəu]

cod-liver-
oil

熊家婆 [ʃəŋ dʒia po]

Grandma Bear,
a character in
folk tale.
(Fig.68)

荷花池 [xə xua tʃi]

a lily pond

T.II + I + III: The 1st syllable remains low-falling.

√1V: √1V

The 2nd remains high-rising.

The 3rd remains high-falling.

e.g.

足尖舞 [dʒu[˥]dʒien^{˥˥}\u]

ballet

圖書館 [tu[˥]ʃu^{˥˥}\guan]

library
(Fig.69)

長生果 [tʃəŋ sən go]

peanuts
(Fig.70)

T.II + I + IV: The 1st remains low-falling.

√11 → √11

The 2nd remains high-rising.

/The 3rd

The 3rd becomes low-low-falling.

- e.g.
 桃花扇 [tau'xua -fan] name of a play
 神经病 [ɲən dʒin biŋ] mental disease
 玄真洞 [ɣen dʒən doŋ] the name of a cave
 (Fig.71)

T.II + II + I: The 1st syllable remains low-falling.

↓↓↓ → ↓↓↑

The 2nd also remains low-falling.

The 3rd becomes mid-level.

- e.g.
 绿别针 [lu bie -dʒən] a green brooch
 脚踏车 [dʒo ta tʃe] bicycle
 (Fig.72)

峨眉山 [o mi ʃan] Mount Omei of Szechwan

T.II + II + II: The 1st syllable, the 2nd syllable and

↓↓↓. ↓↓↓

the 3rd syllable all remain low-falling,

but each starts a little lower than

the preceding one.

- e.g.
 重阳节 [tʃoŋ ɲaŋ dʒie] The Ninth month festival

铁索桥 [tie so tʃiau] Iron-chained Bridge
 (Fig.73)

北扭厝 [be dʒi go] name of a pavilion

T.II + II + III: The 1st and the 2nd syllables remain

↓↓↓: ↓↓↑

low-falling. The 2nd starts a little lower.

The 3rd remains high-falling

- e.g.
 牛喝水 [niəu tʃr ʃuei] cow drinking water

/red ink

紅墨水 [xon] - me \ [uei] red ink

咸益里 [xan i li] the name of a lane

T.II + II + IV: The 1st and the 2nd syllable remain low-falling.

↓↓↓ → ↓↓↓

The 3rd becomes low-low-falling.

e.g.

紅樓夢 [xon] - lau - mon] "The Red Chamber Dream" name of a novel

龍門陣 [lon] - mon - dzan] dragon gate formation

白蛇傳 [be] - fe - dzuan] The Story of the White Snake (Fig.74)

T.II + III + I: The 1st syllable remains low-falling.

√N1 → √71

The 2nd becomes high-level.

The 3rd becomes mid-level.

e.g.

黃浦灘 [xuan] - pu - tan] The Bund (Fig.75)

王寶釧 [uan] - bau - tʃuan] Lady Precious Stream (Fig.76)

狐狸精 [fu] - li - dzin] fox spirit

洋水仙 [ian] - ſuei - ſien] hyacinth

T.II + III + II: The 1st syllable remains low-falling.

The 2nd becomes high-level.

√N1 → √71

The 3rd remains low-falling

e.g.

黃鼠狼 [xuan] - ſu - lan] skunk (Fig.77)

螢火蟲 [in] - xo - tʃon] firefly (Fig.78)

六表叔 [lu] - biau - ſu] sixth uncle

/T.II + III + III:

T.II + III + III: The 1st syllable remains low-falling.

↓ ↓ ↓ → ↓ 7 ↓

The 2nd becomes high-level.

The 3rd remains high-falling

e.g.

國史館 [˩.gue˥˥r ˩.guan˥˥]

Bureau of
National
History
(Fig.79)

寒暑表 [xan ˩ ˩u ˩biau˥˥]

thermometer
(Fig.80)

鞋底板 [xai ˩ di ˩ban˥˥]

sole of shoe

T.II + III + IV: The 1st syllable remains low-falling.

↓ ↓ ↓ → ↓ 7 ↓

The 2nd becomes high-level.

The 3rd becomes low-low-falling.

e.g.

黃疸病 [˩.xuan˥˥dan ˩bin˥˥]

jaundice
(Fig.81)

蘋果樹 [˩bin˥˥go ˩˩u˥˥]

apple tree
(Fig.82)

~~to take films~~

T.II + IV + I: The 1st syllable remains low-falling.

↓ ↓ 1 → ↓ 1 ↓

The 2nd becomes a low-level tone.

The 3rd remains high-rising.

e.g.

絨線衫 [˩.ʒon˥˥-ʃien˥˥san˥˥]

knitwear
(Fig.83)

綠豆湯 [˩lu˥˥dau˥˥taŋ˥˥]

greenpea soup
(Fig.84)

接線工 [˩dʒie˥˥ʃien˥˥sən˥˥]

telephone
operator

T.II + IV + II: The 1st syllable remains low-falling.

↓ ↓ ↓ → ↓ 1 ↓

The 2nd becomes low-level.

The 3rd remains low-falling.

e.g.

八字腳 [˩.ba˥˥-dʒz˥˥-dʒyo˥˥]

walking with
heels close
together
(Fig.85)

/canvas bed

帆布床 [fan - bu - tʃuɑŋ]

canvas bed
(Fig.86)

黃豆芽 [xuɑŋ dəu iɑ]

bean sprouts

T.II + IV + III: The 1st syllable remains low-falling.

↓↘↘ → ↓↘↘

The 2nd becomes low-level.

The 3rd remains high-falling

e.g.

黃豆粉 [xuɑŋ - dəu - fən]

yellow bean
powder
(Fig.87)

巡撫使 [ɣin u ʃɿ]

former title
of a Governor
of a province

王部長 [uɑŋ bu dʒɑŋ]

Minister Wang

T.II + IV + IV: The 1st syllable remains low-falling.

↓↘↘ → ↓↘↘

The 2nd becomes low-level.

The 3rd becomes low-low-falling.

e.g.

無線電 [u - ʃien - dien]

wireless

雜貨店 [dʒa xo dien]

grocer
(Fig.88)

炸醬麵 [dʒa dʒiaŋ mien]

noodles with
mince
(Fig.89)

腸胃病 [tʃɑŋ uei biŋ]

stomach
troubleT.III + IV + IV: The 1st syllable becomes high-level.

↗↗↗ → ↗↗↗

The 2nd becomes mid-level.

The 3rd becomes low-low-falling.

e.g.

洗衣機 [lɑi fɑi ʃi]

laundry

水喉 [ʃuɑi fən dʒi]

waterpipe
(Fig.92)

ordinary mail

T.III + I + I: The 1st syllable becomes high-level.

√ 11 → 7-1

The 2nd becomes mid-level.

The 3rd also becomes mid-level but slightly lower than the 2nd syllable.

e.g.

水仙花 [-ŋuei - ŋien - xua] narcissus
(Fig.90)

小妖精 [ŋiau iau dʒiŋ] elf

五芳齋 [u fan dzai] name of a
restaurant

T.III + I + II: The 1st syllable becomes high-level.

√ 11 → 7-1

The 2nd becomes mid-level.

The 3rd remains low-falling.

e.g.

手風琴 [-ŋau - fɔŋ - tʃin] accordion
(Fig.91)

語音學 [y iŋ ŋyɔ] Phonetics

小巴黎 [ŋiau ba li] Little Paris

T.III + I + III: The 1st syllable becomes high-level.

√ 1V → 7-1V

The 2nd becomes mid-level.

The 3rd remains high-falling.

e.g.

總經理 [-dʒɔŋ - dʒin \ li] general
manager

小花狗 [ŋiau xua gəu] small spotted
dog.
(Fig.92)

T.III + I + IV: The 1st syllable becomes high-level.

√ 1V → 7-1V

The 2nd becomes mid-level.

The 3rd becomes low-low-falling.

e.g.

洗衣店 [-ŋi - i - dien] laundry

水煙袋 [ŋuei ien dai] waterpipe
(Fig.93)

/ordinary mail

普通信 [ˈpu-ton ˌɿn] ordinary mail

T.III + II + I: The 1st syllable becomes high-level.

∨ ∨ 1 → 7 ∨ -

The 2nd remains low-falling.

The 3rd becomes mid-level.

e.g. lipstick [dʒuei ˌɿən-gau] lipstick

小学生 [ɿau ɿo sən] school-children

打銅街 [da ton gai] name of a street in Chengtu, Szechuan. (Fig.94)

T.III + II + II: The 1st syllable becomes high-level.

∨ ∨ ∨ → 7 ∨ ∨

The 2nd remains low-falling.

The 3rd also remains low-falling.

e.g.

兩百錢 [ˈliən-be-tʃien] 200 coins (Fig.95)

水龍頭 [ɿuei lon tau] tap for water

美國人 [mei gue ʒən] Americans

T.III + II + III: The 1st syllable becomes high-level.

∨ ∨ ∨ → 7 ∨ ∨

The 2nd remains low-falling.

The 3rd remains high-falling.

e.g.

李鐵拐 [li-tie ˌgwaɪ] a legendary character

小白狗 [ɿau be gau] a small white dog (Fig. 96)

口头语 [kau tau y] favourite expression

/T.III + II + IV:

T.III + II + IV: The 1st syllable becomes high-level.

√ √ 1 → 7 √ √

The 2nd remains low-falling.

The 3rd becomes low-low-falling.

e.g.

顯微鏡 [ʃien uei dzin] microscope

老和尚 [lau xo ʃaŋ] old monk

板门店 [ban man dien] Panmunjon (Fig.97)

老皮匠 [lau pi dziaŋ] old shoe-maker

T.III + III + I: The 1st syllable becomes high-level.

√ √ 1 → 7 √ 1

The 2nd falls from high to mid-high.

The 3rd becomes ~~✗~~ mid-level.

e.g.

保險箱 [bau ʃien - ʃiaŋ] safe-box (Fig.98)

跑馬場 [pau ma tiŋ] race-course

老虎精 [lau fu dziaŋ] tiger spirit

老字號 [lau dziaŋ dziaŋ] name of a shop

T.III + III + II: The 1st syllable becomes high-level.

√ √ 1 → 7 √ 1

The 2nd falls from high to mid-high.

The 3rd remains a low-falling tone

e.g.

跑馬場 [pau ma tʃaŋ] race-course (Fig.100)

李主席 [li dzu ʃi] Chairman Lee

T.III + III + III: The 1st syllable becomes high-level.

√ √ √ → 7 √ √

The 2nd falls from high to mid-high.

The 3rd remains high-falling but ends at a much lower point than the 2nd /syllable

syllable.

- e.g. 保守黨 [ˈbau ˨˩ ˨˩ ɲaŋ] the Conservative Party (Fig.101)
- 小老虎 [ɕiau lau fu] small tiger
- 老古板 [lau gu ban] old-fashioned (Fig.102)

T.III + III + IV. The 1st syllable becomes Ⅹ high-level.

ⅴⅴⅴ→ⅴⅴⅴ

The 2nd remains high-falling ending
somewhere about mid-high.

The 3rd becomes a low-low-falling tone.

- e.g. 老虎灶 [ˈlau ˨˩ ˨˩ ɲau] a place where boiling water is sold (Fig.103)
- 水果店 [ɕuei go dien] fruit shop (Fig.104)
- 養老院 [iaŋ lau yen] an asylum for the aged

T.III + IV + I: The 1st syllable becomes high-level.

ⅴⅴⅴ→ⅴⅴⅴ

The 2nd becomes a low-level tone.

The 3rd remains high-rising

- e.g. 打字機 [ˈda ˨˩ ˨˩ ɲzi] typewriter (Fig.105)
- 短大衣 [duan da i] short jacket
- 老正興 [lau ɲən ɕiŋ] name of a restaurant

T.III + IV + II: The 1st syllable becomes high-level.

ⅴⅴⅴ→ⅴⅴⅴ

The 2nd becomes low-level.

The 3rd remains low-falling.

- e.g. 打箭爐 [ˈda ˨˩ ˨˩ ˨˩ lu] name of a place on the border of Tibet (Fig.106)
- /vegetable

小菜場 [ˈtʃau - tsai - tʃaŋ]

vegetable market
(Fig.107)

打氣筒 [da tʃi toŋ]

bicycle pump

T.III + IV + III: The 1st syllable becomes high-level.

V V N → 7 J V

The 2nd becomes low-level.

The 3rd remains high-falling.

e.g.

禮拜五 [ˈli - bai - u]

Friday

老豆腐 [lau dau fu]

bean curd
(Fig.108)

討債鬼 [tau dzai guei]

a ghost who asks
for debt, a form
of abuse
(Fig.109)T.III + IV + IV: The 1st syllable becomes high-level.

V V V → 7 J J

The 2nd becomes low-level.

The 3rd becomes low-low-falling

e.g.

擰麵杖 [ˈŋan - mien - dʒaŋ]

rolling pin

禮拜四 [li bai ss]

Thursday

老電話 [lau dien xua]

old phone number
(Fig.110)

T.IV + I + I: The 1st syllable remains low-falling-rising
 ✓11→111 The 2nd remains high-rising.
 The 3rd becomes mid-level.

e.g.

壞東西 [xuai 'dɔŋ -ji] a bad thing
 電燈泡 [dien dən pau] bulb (for lamp)
 (Fig.111)
 舊金山 [dʒiəu dʒin ʃən] San Francisco

T.IV + I + II: The 1st syllable remains low-falling-rising.
 ✓11:111 The 2nd remains high-rising.
 The 3rd remains low-falling

e.g.

叫花婆 [dʒiəu 'xua po] beggar women
 (Fig.112)
 放生池 [fəŋ sən tʃɿ] a pond for liber-
 ated living fish
 (Fig.113)
 鏡花緣 [dʒin xua yen] name of a novel

T.IV + I + III: The 1st syllable remains low-falling-rising
 ✓1V:11V The 2nd remains high-rising.
 The 3rd remains high-falling

e.g.

喇叭風扇 [vʌn fɔŋ \r] an ancient kind
 of megaphone
 (Fig.114)
 賣抄手 [mai tʃau ʃəu] selling noodles
 到香港 [dau ʃaŋ ʒaŋ] to go to Hongkong

T.IV + I + IV: The 1st syllable remains low-falling-rising.
 ✓111→111 The 2nd remains high-rising.
 The 3rd becomes a low-low-falling tone.

e.g.

外交部 [xuai 'dʒiəu -bu] Foreign Ministry
 /tram stop

電車站 [v diən tʃe - dzan]

tram stop

被單戲 [bei dan ʃi]

puppet show
(Fig.115)

T.IV + II + I: The 1st syllable remains low-falling-rising.

↘↘↗↘↘↘

The 2nd remains low-falling.

The 3rd becomes mid-level.

e.g.

橡皮筋 [v ʃiəŋ pi - dzin]

rubber band
(Fig.116)

大出喪 [da tʃu ʃaŋ]

funeral pro-
cession
(Fig.117)

繡球花 [ʃiəu tʃiəu xua]

name of a
flower

T.IV + II + II: The 1st syllable remains low-falling-rising.

↘↘↘↘↘↘

The 2nd remains low-falling.

The 3rd remains low-falling.

e.g.

外國人 [v uai - que - ʒən]

foreigners

象牙林 [ʃiəŋ ia tʃuaŋ]

ivory bed

勸業場 [tʃyən nie tʃaŋ]

an industrial
exposition where
goods can be
purchased
(Fig.118)

T.IV + II + III: The 1st syllable remains low-falling-rising.

↘↘↘↘↘↘

The 2nd remains low-falling.

The 3rd remains high-falling.

e.g.

二百五 [v r - be \ u]

"half-wit"
a term of abuse
(Fig.119)

自由黨 [dʒz iəu dɑŋ]

the Free Party
(political)

自來水 [dʒz lai ʃuei]

tap water

/T.IV + II + IV:

T.IV + II + IV: The 1st syllable remains low-falling-rising.

↘↘↘→↘↘↘

The 2nd remains low-falling.

The 3rd becomes low-low-falling.

e.g.

臭鹹蛋 [tʃəu xan - dan] pickled egg
(Fig.120)

剃頭匠 [ti təu dziaŋ] barber
(Fig.121)

溜滑肉 [dziaŋ bo ʒəu] meat with gravy

T.IV + III + I: The 1st syllable remains low-falling-rising.

↘↘↘→↘↘↘

The 2nd becomes high-level.

The 3rd becomes mid-level.

e.g.

臭水溝 [tʃəu ʃuei - gəu] gutter
(Fig.122)

大喇叭 [da la ba] trumpet

敬祖宗 [dzin dzu dzon] to worship the ancestors

T.IV + III + II: The 1st syllable remains low-falling-rising.

↘↘↘→↘↘↘

The 2nd becomes high-level.

The 3rd remains low-falling.

e.g.

大表哥 [da biau - fu] eldest uncle
(Fig.123)

電火爐 [dien xo - lu] electric fire

愛爾蘭 [nai r lan] Ireland

T.IV + III + III: The 1st syllable remains low-falling-rising.

↘↘↘→↘↘↘

The 2nd becomes high-level.

/The

The 3rd remains high-falling

e.g.

造酒廠 [v dzaʊ dziaʊ tʃaŋ] brewery
(Fig.124)

受洗禮 [ʃəu ʃi li] baptism

唱小丑 [tʃaŋ ʃiaʊ tʃəu] to play the clown

T.IV + III + IV: The 1st syllable remains low-falling-rising.

↘↘↘→↗↗↘

The 2nd becomes high-level.

The 3rd becomes low-low-falling.

e.g.

趙主教 [v dzaʊ dzu dziaʊ] Bishop Chao
(Fig.125)

看手相 [kan ʃəu ʃaŋ] palm-reading

戴眼鏡 [dai ien dzin] to wear spectacles

T.IV + IV + I: The 1st syllable remains low-falling-rising.

↘↘↗→↘↘↗

The 2nd becomes low-level.

The 3rd becomes mid-level.

e.g.

富士山 [v fu ʃr ʃaŋ] Fujiyama,
the mountain
(Fig.126)

會計師 [kuei dzi ss] accountant

政務廳 [dzən u tin] administration
dept.

T.IV + IV + II: The 1st syllable remains low-falling-rising.

↘↘↘→↘↘↘

The 2nd becomes low-level.

The 3rd remains low-falling.

e.g.

聖誕節 [v ʃən dan dzie] Christmas
(Fig.127)

大笨蟲 [da bən tʃoŋ] great fool

/T.IV + IV + III:

T.IV + IV + III: The 1st syllable remains low-falling-rising.

↘↘↗ → ↘↘↘

The 2nd becomes low-level.

The 3rd remains high-falling.

e.g.

破碗 [v po -fan \uan]

a broken bowl
(Fig.128)

大上海 [da ʃaŋ xai]

Greater
Shanghai

T.IV + IV + IV: The 1st syllable remains low-falling-rising.

↘↘↗ → ↘↘↘

The 2nd becomes low-level.

The 3rd becomes low-low-falling

e.g.

聖誕樹 [v ʃən -dan -ʃu]

Christmas tree
(Fig.129)

大教授 [da dʒiau ʃəu]

professor
(Fig.130)

From the above we draw the following conclusions for the three-syllabled group:

1. Toneme I remains high-rising when it is in the initial position.

It becomes mid-level when final except in the combinations, II + IV + I, and III + IV + I, in which cases it remains high-rising.

When it is in the middle position, then if the first syllable is T.I or T.III, it becomes a mid-level tone; but if the first syllable is T.II or T.IV, then it remains high-rising.

2. Toneme II has no change whatever; it remains a low-falling tone in whichever position it occurs.

3. Toneme III remains high-falling when final and becomes high-level when initial.

When it is in the middle, then if the first syllable is T.I or T.III, it remains high-falling, though ending at about mid-high; but if the first syllable is T.II or T.IV, then it becomes high-level.

4. Toneme IV remains low-falling-rising when initial. It becomes low-low-falling and is checked by a glottal stop when final.

When it is in the middle position then it becomes low-level.

I	✓	✓	✓
II	✓	✓	✓
III	✓	✓	✓
IV	✓	✓	✓

5. The following position variants occur:

Initial: T.I. remains high-rising.

T.II remains low-falling.

T.III becomes high-level.

T.IV remains low-falling-rising.

Medial: T.I, when the first syllable is T.I or T.III, becomes a mid-level tone. Otherwise it remains high-rising.

T.II remains low-falling.

T.III, when the first syllable is T.II or T.IV, becomes high-level. Otherwise it becomes half-high-falling.

T.IV becomes low-level.

Final: T.I becomes mid-level except in the combinations, II + IV + I and III + IV + I, in which cases it remains high-rising.

T.II remains low-falling.

T.III remains high-falling.

T.IV becomes a low-low-falling and is checked by a glottal stop.

Toneme	Naming Tone	Initial	Medial	Final
I	1	1	$\downarrow (\frac{I}{II} + I + \chi)$ $\downarrow (\frac{II}{IV} + I + \chi)$	\downarrow $\downarrow (\frac{II}{III} + IV + I)$
II	✓	✓	✓	✓
III	✓	7	$\downarrow (\frac{I}{II} + III + \chi)$ $\downarrow (\frac{II}{IV} + III + \chi)$	✓
IV	✓	✓	↓	↓

C. Four-syllabled group.

The tonal behaviour of the four-syllabled group is as follows:

1. Toneme I remains high-rising when it is in the initial position.

When it is the 2nd or 3rd or 4th syllable then it becomes mid-level.

e.g. 東西南北 [dɔŋ - fɿ ɿan ɿe] east, west, south and north

文藝復興 [uan - ni ɿu - ɿiŋ] Renaissance

2. Toneme II remains low-falling in whatever position it occurs.

e.g. 牛頭馬面 [niau ɿau ɿma ɿmien] ox-headed and horse-faced, characters in the Under World

萬里長城 [uan ɿli tɿaŋ tɿan] the Great Wall

3. Toneme III remains high-falling when final. It becomes high-level in any other position.

e.g. 草人紙馬 [tsau ɿan ɿdz ɿma] straw-men and paper horses

鳥語花香 [ɿniau ɿy ɿxua ɿɿaŋ] singing birds and fragrant flowers

4. Toneme IV remains low-falling-rising when it is in the initial position, but becomes low-level when it is the 2nd or 3rd syllable, and low-low-falling when it is in the final position.

e.g. 士農工商 [ss ɿoŋ ɿgoŋ ɿaŋ] scholars peasants labourers and merchants

己己義 [ɿgai ɿdzi ɿdzu ɿni] egoism

5. The following positional variants occur:

Initial: T.I remains high-rising.
 T.II remains low-falling.
 T.III becomes high-level.
 T.IV remains low-falling-rising.

Medial: T.I becomes mid-level.
 T.II remains low-falling
 T.III becomes high-level.
 T.IV becomes low-level.

Final: T.I becomes mid-level.
 T.II remains low-falling.
 T.III remains high-falling.
 T.IV becomes low-low-falling and
 is checked by a glottal stop.

TONEMES	NAMING TONES	INITIAL	MEDIAL	FINAL
I	↑	↑	↑	↑
II	↓	↓	↓	↓
III	∨	∟	∟	∨
IV	↘	↘	↘	↘

(Tonemes) A List of Four-Syllabled Phrases

(T.I+I+I+I)

1111 交通机关 [tʃiau-ton-dzi-guan] transport organization

(T.I+I+I+II)

1112 春花秋月 [tʃuan-xua-tʃiau-ye] spring flowers and autumn moon

(T.I+I+I+III)

1113 腰金衣紫 [iau-dzin-i \ dzɿ] golden belt and purple robe

(T.I+I+I+IV)

1114 贪官污吏 [tan-guan-u \ li] corrupted officials

(T.I+I+II+I)

1121 声东击西 [ʃən-don-dzi-ʃi] unexpected attack

(T.I+I+II+II)

1122 东西南北 [don-ʃi \ lan-be] east, west, south, and north

(T.I+I+II+III)

1123 咒多吉少 [ʃon-do-dzi \ ʃau] more evil than blessing

(T.I+I+II+IV)

1124 天灾人祸 [tien-dzai-ʃən \ xo] natural and man-made disasters

1131 东西指挥 [don-ʃi \ dzɿ-xuei] giving orders east and west

1132 张花李实 [dʒan-xua \ li \ ʃɿ] inconsistent & irresponsible

1133 招兵买马 [dʒau-bin \ mai \ ma] collecting men and horses

1134 山珍海味 [ʃan-dʒən-xai \ uei] delicacies

1141 公卿大夫 [gong-tʃin-da-fu] high-ranking officials

1142 天翻地覆 [tien-fan-di-fu] chaos

1143 倾家破产 [tʃin-dzia-po \ tsan] bankrupt

1144 天经地义 [tien-dzin-di-ni] universal principle

1211 奸臣妖姬 [dʒien-tʃən-iau-dzi] wicked men and women of the court

1212 东南西北 [don \ lan-ʃi-be] east, south, west and north

1213 英皇加冕 [in-xuan-dzia \ mien] coronation of the English sovereign

1214 科学研究 [ko-ʃyo-nien \ dziau] scientific research

1221 公侯王孙 [gong-xau-uang-sən] princes

1222 风烛残年 [fong-dzu-tsan-nien] candle in the wind (old age)

1223 轻裘肥马 [tʃin-tʃiau-fei \ ma] furs & horses (sign of wealth)

1224 知难行易 [dʒɿ \ lan-ʃi \ i] knowledge precedes practice



- 1231 風燭草霜 [f'ɔŋ, dzu - tsau - suan] candle and frost (transience)
 1232 生離死別 [s'an, li - ss - bie] separations in life and death
 1233 花言巧語 [xua, ien - t'fiau \ y] smooth-tongued
 1234 山窮水盡 [s'an, t'syɔŋ - f'uei - dzin] at the end of one's resources
 1241 包藏禍心 [bau, tsan - xo - sin] concealed ill-will
 1242 心平氣和 [sin, piŋ - t'fi - xo] good-tempered
 1243 心猿意馬 [sin, yen - i \ ma] an unbridled will
 1244 苦海世界 [so, po - sr - gai] world of suffering
 1311 東扯西拉 [dɔŋ - t'fe - fi - la] irrelevant
 1312 滄海桑田 [tsan, xai - san, tien] experiences of life
 1313 修理鐘錶 [f'iau - li - dzɔŋ \ biau] clock and watch repairs
 1314 姑表兄弟 [gu - biau - syɔŋ - di] cousins
 1321 衣錦榮歸 [i - dzin, yɔŋ - g'uei] triumphant home-coming
 1322 花好月圓 [xua - xau - ye - yen] height of happiness
 1323 觀者如堵 [guan - dze - zu \ du] crowded spectators
 1324 貪小失大 [tan - f'iau - sr - da] greedy more than wise
 1331 飛馬趕鎗 [fei - ma - tin - t'fian] galloping, lance in hand
 1332 飛馬趕矛 [fei - ma - tin - mau] " " " "
 1333 加冕典禮 [dzia - mien - dien \ li] coronation ceremony
 1334 生死有命 [s'an - ss - iau - ming] "Fate decrees all."
 1341 先禮後兵 [sien - li - xau - biŋ] ceremony before fighting
 1342 心滿意足 [sin - man - i - dzu] completely satisfied
 1343 生老病死 [s'an - lau - biŋ \ ss] birth, old age, illness and death
 1344 因果報應 [in - go - bau - in] karma
 1411 春夏秋冬 [t'fuan - sia - t'fau - dm] the four seasons
 1412 公事紛繁 [gɔŋ - ss - fan - fan] busily occupied
 1413 宗廟宮府 [dzɔŋ - miao - gɔŋ \ fu] ancestral temples and palaces
 1414 公共租界 [gɔŋ - gɔŋ - dzu - gai] international settlement
 1421 煙霧塵天 [ien - u - t'fan - tien] foggy and dusty
 1422 家破人亡 [dzia - po - zan - uan] a destroyed home
 1423 兄弟朋友 [syɔŋ - di - poŋ \ iau] brothers and friends
 1424 忠孝節義 [dzɔŋ - f'iau - dzie - ni] loyalty, filial piety, chastity, and righteousness.
 1431 金玉寶珠 [dzin - y - bau - dzu] treasures
 1432 安分養福 [yan - fan - ian - fu] blessed contentment
 1433 安分守己 [yan - fan - f'au \ dzɪ] contentment with one's own lot
 1434 生意買賣 [s'an - i - mai - mai] business
 1441 鴉片戰爭 [ia - pien - dzan - dzan] Opium War
 1442 天下太平 [tien - f'ia - tai - piŋ] peace under heaven
 1443 宗教信仰 [dzɔŋ - dziau - sin \ nian] religious belief
 1444 封建制度 [fɔŋ - dzien - dzɪ - du] feudalism

- 2111 鳴金收兵 [、mɿŋ - dʒɪn - ʃəu - bɿŋ] sounding the retreat.
- 2112 焚書坑儒 [、fən - ʃu - kən - zu] burning of books & burying alive of scholars.
- 2113 晨昏顛倒 [、ʃən - xuan - dien \ dau] mixing up night and day
- 2114 國家觀念 [、gue - dzia - guan - nien] nationalism
- 2121 愚公移山 [、y - gɔŋ - i - ʃən] "Faith moves mountains."
- 2122 迎春接福 [、ɿŋ - tʃuən - dzie - fu] Welcome, Spring!
- 2123 為非作歹 [、uei - fei - dzo \ dai] evil doing
- 2124 流芳百世 [、liəu - faŋ - be - ʃɿ] immortal fame
- 2131 紅燒海參 [、xɔŋ - ʃau - xai - sən] braised sea slugs
- 2132 全身鎧甲 [、tʃyən - ʃən - kai - dzia] armed from top to toe
- 2133 結婚典禮 [、dzie - xuan - dien \ li] wedding
- 2134 狼心狗肺 [、lan - ʃɪn - gəu - fei] evil-hearted
- 2141 元亨利貞 [、yen - xən - li - dzən] opening phrase of Book of Changes, used to denote 1, 2, 3, 4.
- 2142 逢凶化吉 [、fɔŋ - ʃyɔŋ - xua - dzi] evil becomes blessing
- 2143 循規蹈矩 [、ʃyɪn - guei - dau \ dʒy] well-behaved
- 2144 門當戶對 [、mən - day - fu - duei] similar family background
- 2211 捷足先登 [、dzi - dzu - ʃien - dən] "The quickest man wins the race."
- 2212 漁樵耕讀 [、y - tʃiau - gən - du] fisherman, woodcutter, farmer & scholar
- 2213 學術思想 [、ʃyɔ - ʃu - ss \ ʃɪŋ] thought currents
- 2214 琴棋書畫 [、tʃɪn - tʃi - ʃu - xua] music, chess, calligraphy, & painting
- 2221 天合地春 [、lu - xo - toŋ - tʃuən] Spring in the universe
- 2222 博學鴻儒 [、bo - ʃyɔ - xɔŋ - zu] erudite scholar
- 2223 牛郎織女 [、niau - lan - dʒɿ \ ny] two stars along the milky way
- 2224 胡說八道 [、fu - ʃɔ - ba - dau] talking nonsense
- 2231 甲乙丙丁 [、dzia - i - bɿŋ - dɿŋ] characters denoting 1, 2, 3, 4
- 2232 桃紅柳綠 [、tau - xɔŋ - liəu - lu] peach blossoms and willows
- 2233 狐羣狗黨 [、fu - tʃyɪn - gəu \ dan] gang of thieves
- 2234 牛頭馬面 [、niau - təu - ma - mien] spirits of the underworld
- 2241 時局變遷 [、ʃɿ - dʒy - bien - tʃien] changes in world situation.
- 2242 明察好法 [、mɿŋ - tʃa - xau - fa] shrewd and judicious
- 2243 福祿壽喜 [、fu - lu - ʃəu \ ʃi] mundane blessings
- 2244 油鹽醬醋 [、iəu - ien - dziaŋ - tsu] oil, salt, sauce, & vinegar
- 2311 博古通今 [、bo - gu - toŋ - dʒɪn] widely learned
- 2312 萍水相逢 [、pɿŋ - ʃuei - ʃɪŋ - fɔŋ] a random encounter
- 2313
- 2314 額手相慶 [、ɲe - ʃəu - ʃɪŋ - tʃɪn] to congratulate one another
- 2321 七扯八拉 [、tʃɿ - tʃe - ba - la] irrelevant talk
- 2322 鹽米油鹽 [、tsai - mi - iəu - ien] essentials for cooking
- 2323 男尊女卑 [、lan - ny - pɿŋ \ dən] equality between the sexes
- 2324 盲啞學校 [、maŋ - ia - ʃyɔ - ʃiau] school for blind and dumb

- 2331 博覽古今 [bo⁻lan⁻gu⁻dzin] widely learned
- 2332 逆黨反臣 [nie⁻dan⁻fan⁻tʃən] rebels
- 2333
- 2334 全体反對 [tʃyen⁻ti⁻fan⁻duer] unanimous objection
- 2341 擊鼓撞鈴 [dzi⁻gu⁻dzuang⁻dʒən] sounding the alarm
- 2342 游手好閒 [iəu⁻fau⁻xau⁻fien] idling
- 2343 民主政体 [min⁻dzu⁻dʒən⁻ti] democratic constitution
- 2344 挨打受氣 [ŋai⁻da⁻fau⁻tʃi] beaten and humiliated
- 2411 名利双收 [min⁻li⁻suang⁻fau] reaping profit and fame
- 2412 麟鳳龜龍 [lin⁻fəŋ⁻guei⁻lon] rare animals and birds
- 2413 隔岸觀火 [ge⁻ŋan⁻guan⁻xo] watching a fire on the other side of a river (a cool on-looker)
- 2414 蒙上欺下 [mon⁻fan⁻tʃi⁻fia] deceiving one's superiors and oppressing one's inferiors
- 2421 絕路逢生 [dʒye⁻lu⁻fəŋ⁻sən] unexpected delivery from danger
- 2422 龍鳳呈祥 [lon⁻fəŋ⁻xo⁻min] happy marriage
- 2423 嚴父慈母 [nien⁻fu⁻tss⁻mu] stern father, kind mother
- 2424 名正言順 [min⁻dʒən⁻ien⁻suən] right and proper
- 2431 革面洗心 [ge⁻mien⁻ʃi⁻ʃin] change of heart and appearance
- 2432 月下老人 [ye⁻ʃia⁻lau⁻dʒən] god of matrimony
- 2433 鹽務總理 [ien⁻u⁻dʒən⁻li] controller of salt revenue
- 2434 前後左右 [tʃien⁻xau⁻dzo⁻iəu] front, back, left, and right
- 2441 一帆风顺 [i⁻lu⁻ʃuan⁻fəŋ] bon voyage!
- 2442 遺臭萬年 [i⁻ʃiau⁻uan⁻nien] eternally infamous
- 2443 名譽會長 [min⁻y⁻xuei⁻dʒən] honorary president
- 2444 長命富貴 [tʃan⁻min⁻fu⁻guei] longevity and prosperity
- 3111 永豐公司 [yin⁻ŋan⁻gəŋ⁻ss] Wing On Company (Shanghai Department Store)
- 3112 中環投月 [ʃuei⁻dʒən⁻lau⁻ye] "dive into water for the moon"
- 3113 五經魁首 [u⁻dʒin⁻keuei⁻ʃau] number in game of guess-fingers
- 3114 飽經憂患 [bau⁻dʒin⁻iəu⁻xuan] had one's fill of sorrow & distress
- 3121 火光燭天 [xo⁻guang⁻dzu⁻tien] fire lighting up the skies
- 3122 五光十色 [u⁻guang⁻ʃr⁻se] all shades of colours
- 3123 有傷國體 [iəu⁻ʃan⁻guei⁻ti] derogatory of one's country
- 3124 古今同嘆 [gu⁻dʒin⁻ton⁻tən] lamented by past & present ages
- 3131
- 3132 水患火劫 [ʃuei⁻ʃən⁻xo⁻ze] fire and floods (disasters)
- 3133 土崩瓦解 [tu⁻ban⁻ua⁻gai] earth crumbling
- 3134 捨生取義 [ʃe⁻sən⁻tʃy⁻ni] sacrifice in the cause of righteousness
- 3141 假公報私 [dzia⁻gəŋ⁻bau⁻ss] selfish acts in the name of public good
- 3142 老奸巨猾 [lau⁻dʒien⁻dzy⁻xua] a cunning old rascal
- 3143 滾鞍下馬 [guan⁻ŋan⁻ʃia⁻ma] rolling down the saddle
- 3144 長蛇獻掌 [ʃi⁻ʃin⁻ien⁻dʒiau] fickle

- 3211 滿目滄桑 [-man, mu -tʃaŋ -saŋ] sadness everywhere
 3212 賞罰分明 [-ʃaŋ, fa -fən, mɪŋ] just in reward and punishment
 3213 腫眉泡眼 [-dʒoŋ, mi -pau \ ien] swollen eyes and brows
 3214 九流三教 [-dʒiəu, liəu -san -dʒiəu] all classes and society
 3221 土豪劣紳 [-tu, xau, le -ʃən] country bores
 3222 東泥饅頭 [-dʒau, ni, man, təu] dumplings stuffed with dates
 3223 咬牙切齒 [-niau, ia, tʃie \ tss] grinding one's teeth
 3224 咬文嚼字 [-niau, uan, dʒyo -dʒz] pedantic
 3231 舉一反三 [-dʒy, i -fan -san] deriving particulars from one principle
 3232
 3233 紙人草馬 [-dʒɪ, zən -tsau \ na] paper men and horses
 3234 眼明手快 [-ien, mɪŋ -ʃəu -kuai] alert
 3241 水月鏡花 [-ʃuei, ye -dʒin -xua] moon in the water & flower in the mirror (unreality)
 3242 胡亂說 [-da, fu -luan, ʃo] talking nonsense
 3243 損人利己 [-sən, zən -li \ dʒi] profit at the expense of another
 3244 小事大做 [-ʃian, ti -da -dʒu] unnecessary fuss
 3311 鳥語花香 [-niau -y -xua -ʃiaŋ] singing birds & fragrant flowers
 3312 飲水思源 [-in -ʃuei -ss, yen] "Think of the source when drinking water"
 3313 保養身體 [-bau -iaŋ -ʃən \ ti] to look after one's health
 3314 小本生意 [-ʃiau -bən -sən -i] small trade
 3321 斬草除根 [-dʒən -tsau, tʃu -gən] complete elimination
 3322 捲土重來 [-dʒyen -tu, tʃoŋ, lai] renewed attempt (at conquest)
 3323 窈窕淑女 [-miao -tiao, ʃu \ ny] beautiful girls
 3324 手舞足蹈 [-ʃəu -u, dʒu -dau] dancing and gesticulating
 3331
 3332 管理委員 [-guan -li -uei, yen] administrator
 3333 豈有此理 [-tʃi -iau -tss \ li] ridiculous!
 3334
 3341
 3342 久仰大名 [-dʒiəu -niaŋ -da, mɪŋ] polite speech upon introduction
 3343 傀儡政府 [-kuai -luei -dʒən \ fu] puppet government
 3344 海底電纜 [-ʃuei -di -dien -ʃien] undersea cable
 3411 口是心非 [-kau -ʃɪ -ʃin -fei] insincere words
 3412 藕斷絲連 [-əu -duan -ss, lien] lingering ties
 3413 舉動粗鄙 [-dʒy -dɔŋ -tsu \ lu] rough manners
 3414 諂上驕下 [-tsən -ʃaŋ -dʒiəu -ʃia] fawning upon one's superiors and haughty towards one's inferiors

- 3421 女扮男装 [-ny -ban -lan -dzuay] a girl dressed as a man
- 3422 五世同堂 [-u -sr -toy -taŋ] five generations in the same hall
- 3423 礼义廉耻 [-li -ni -lien -tʃr] courtesy, righteousness, scrupulous honesty, a sense of shame.
- 3424 酒肉和尚 [-dziau -zau -xo -saŋ] monks who do not observe their vows
- 3431 起义有功 [-tʃi -ni -iau -goŋ] meritorious service
- 3432 奖顺讨逆 [-dziaŋ -ʃuan -tau -nie] rewarding the submissive and crushing the rebellious
- 3433 酒店老板 [-dziau -dien -lau -ban] mine host
- 3434 长幼有序 [-dzaŋ -iau -iau -sɿ] in the right order according to age
- 3441
- 3442 胆大妄为 [-dan -da -uaŋ -uei] daring and wicked
- 3443 酒醉饭饱 [-dziau -dzuei -fan -bau] filled with food & drink
- 3444 免费送信 [-mien -fei -soŋ -sin] free delivery of letters
- 4111 辞官归乡 [-tʃi -guan -guei -siaŋ] resigning from office
- 4112 地方分权 [-v di -faŋ -fan -tʃyen] decentralization
- 4113 慎终思远 [-v tʃan -dzoŋ -ss -yen] far-sighted
- 4114 过期支票 [-v go -tʃi -dʒr -piau] an over-due check
- 4121 印光法師 [-v in -guan -fa -ss] name of a monk
- 4122 借刀杀人 [-v dzie -dau -fa -ʒan] murder by proxy
- 4123 半斤八两 [-v ban -dʒin -ba -liay] alike
- 4124 道高德重 [-v dau -gau -de -dzoŋ] venerable
- 4131 自居有功 [-v dzɿ -dzy -iau -goŋ] claiming merit for oneself
- 4132 兴高彩烈 [-v ʃin -gau -tsai -lie] high-spirited
- 4133 露天表演 [-v lu -tien -biau -ien] open-air show
- 4134 大器小用 [-v da -dʒin -ʃiau -guai] "storm in a tea-cup."
- 4141 卖身葬夫 [-v mai -ʃan -dzaŋ -fu] woman selling herself in order to bury her dead husband
- 4142 盡忠報國 [-v dʒin -dzoŋ -bau -gue] to do one's utmost for one's country
- 4143 醉生夢死 [-v dzuei -sən -moŋ -ss] dissipating one's life
- 4144 步兵上校 [-v bu -biŋ -saŋ -dziau] colonel
- 4211 士農工商 [-v ss -loŋ -goŋ -saŋ] scholar, farmer, labourer, & merchant.
- 4212 太平天國 [-v tai -piŋ -tʃien -gue] The Taipings
- 4213 重男輕女 [-v dzoŋ -lan -tʃin -ny] boys before girls
- 4214 境由人造 [-v dʒin -iau -ʃin -dzau] the mind creates the environment
- 4221 乱七八糟 [-v luan -tʃi -ba -dzau] topsy-turvy
- 4222 大發雷霆 [-v da -fa -luei -tʃin] flying into a temper
- 4223 自尋煩惱 [-v dzɿ -ʃɿn -fan -lau] caused one's own misery
- 4224 四時令 [-v ss -ʃr -ye -liŋ] the seasons
- 4231 面目可憎 [-v mien -mu -ko -dʒan] a repulsive face
- 4232 少年老成 [-v ʃau -mien -lau -tʃan] maturity in youth

4233	豹頭虎眼	[v bau - dau - fu - yien]	sturdy features
4234	父慈子孝	[v fu - tss - dz - siau]	kind father and filial child
4241	夜長夢多	[vie - tjan - mong - do]	unrestful nights
4242	愛國利民	[v gai - gue - li - ming]	beneficial to one's country
4243	善男信女	[v fan - lan - sin - ny]	pious men and women
4244	戊戌政變	[v u - si - dzan - bien]	The coup-d'etat of 1898
4311	異想天開	[v i - siang - tien - kai]	fantastic ideas
4312	大雨傾盆	[v da - y - t'ying - pan]	down-pour
4313			
4314	變本加厲	[v bien - ban - dzia - li]	compound interest
4321	妙手回春	[v miao - jau - xuei - t'uan]	a healing hand
4322	萬里長城	[v uan - li - t'jan - t'jan]	The Great Wall
4323	賣酒屠狗	[v mai - dziau - tu - gau]	butcher & publican
4324	痛飲一醉	[v tong - ing - i - dzuei]	mad drinking
4331	教子有方	[v dziau - dz - iau - fan]	good home-education
4332	妙語解頤	[v miao - y - gai - i]	a pleasant joke
4333	父子女	[v fu - mu - dz - ny]	parents & children
4334	愛己主義	[v gai - dzi - dzu - ni]	egoism
4341	懺悔自新	[v tsan - xuei - dz - sin]	repentant
4342	冒險性質	[v mau - sien - sin - d'z]	adventurous
4343			
4344	破口大罵	[v po - kau - da - ma]	terrible abusing
4411	怒氣沖天	[v nu - t'ji - t'fong - tien]	violent anger
4412	拜祭天神	[v bai - dzi - tien - fan]	sacrificing to the gods
4413	面善心狠	[v mien - fan - sin - xan]	outward kindness concealing a wicked heart
4414	孝悌忠信	[v siu - di - dzong - sin]	filial piety, brotherliness, loyalty, & truthfulness
4421	內外夾攻	[v nuei - uai - dzia - gong]	attack from within & without
4422	富貴險惡	[v fu - guei - fau - yin]	indifference to wealth & honors
4423			
4424	見利忘義	[v dzien - li - uan - ni]	greed overthrows righteousness
4431	調度有方	[v diau - du - iau - fan]	good administration
4432	大器晚成	[v da - t'ji - uan - t'fan]	great talents mature slowly
4433			
4434	玳瑁眼鏡	[v dai - mau - tien - dzin]	horn-rimmed spectacles
4441	富貴在天	[v fu - guei - dzai - tien]	"Fortune is the gift of Providence"
4442	道貌岸然	[v dau - mau - nan - zan]	lofty look of a sage
4443	中箭墮馬	[v dzong - dzien - do - ma]	falling off one's horse wounded
4444	挫動銳氣	[v tso - dong - zuei - t'ji]	blunt the keen edge of another's valour.

The results of my investigation in this chapter may now be summarised:

1. There are ten principal allotones for the four tonemes. They are:

Toneme I	(1) high-rising
	(2) mid-level
Toneme II	(3) low-falling
Toneme III	(4) high-falling
	(5) high-level
	(6) half-high falling
Toneme IV	(7) low-falling-rising
	(8) low-low-falling
	(9) low-level
	(10) neutral tone

2. Toneme II always remains low-falling.
3. Toneme I and IV remain unchanged in the initial position.
4. Toneme III remains unchanged when it is in the final position.
5. When Toneme I goes through perturbation the naming tone is always substituted by a mid-level tone or one slightly lower.
6. The naming tone of Toneme III is replaced by a high-level tone when it is initial in a three-syllabled-group or when it is the first three syllables in a four-syllabled group. ^{In some cases} it is replaced by a half-high-falling tone when it is the middle syllable in a three-syllabled group.
7. The naming tone of Toneme IV is replaced by a low-level tone when it is in the middle of either a /three-syllabled

CHAPTER II

three-syllabled or a four-syllabled-group. It is replaced by a low-low-falling tone checked by a glottal stop when it is the final syllable of a group.

Intonation is the fluctuation of the voice pitch as applied to the whole sentence. It is the sentence melody and is superimposed on the rhythm of the words. When compared with tones, intonation may be said to be of a larger unit, because tones apply to individual syllables whereas intonation covers the whole sentence. Unlike tones, furthermore, a change of intonation does not affect the lexical value of words. As stated before, intonation may add shades of meaning to the sentence spoken and bring out the attitude of the speaker and the emotional state he is in.

Every community has its own intonation pattern, i.e., its own rules of changing the voice pitch when uttering the sentence. The fluctuation of the voice pitch of the individual follows, consciously as well as unconsciously, these patterns. Those whose intonation does not coincide with these patterns are considered foreign speakers. ("Foreign" in the broad sense, meaning 'strange' or 'peculiar' or 'alien'.) Those who are not familiar with these patterns naturally miss the subtle "overtone" of the sentence spoken.

CHAPTER IIINTONATION AND ITS RELATIONSHIP TO TONES.

In the preceding chapter I have presented the changes of the tones. In this chapter I shall deal with intonation.

Intonation is the fluctuation of the voice pitch as applied to the whole sentence. It is the sentence melody and is superimposed on the sentence as a whole. When compared with tones, intonation may be said to be of a larger unit, because tones apply to individual syllables whereas intonation covers the whole sentence. Unlike tones, furthermore, a change of intonation does not affect the lexical value of words. As stated before, intonation only adds shades of meaning to the sentence spoken and brings out the attitude of the speaker and the emotional state he is in.

Every community has its own intonation pattern, i.e., its own rules of changing the voice pitch when uttering the sentence. The fluctuation of the voice pitch of the individual follows, consciously as well as unconsciously, these patterns. Those whose intonation does not coincide with these patterns are considered foreign speakers. ("Foreign" in the broad sense, meaning 'strange' or 'peculiar' or 'alien'.) Those who are not familiar with these patterns naturally miss the subtle "overtones" of the sentence spoken.

In a tonal language one would imagine the pitch of each syllable to be fixed beforehand, and therefore that it would be difficult for a tonal language to have "intonation". But on closer examination we find pitch phenomena which we can only regard as "intonation" superimposed upon the tonal system. It is true that the relative pitches of the individual tones in contrast to one another (in a sentence) remain more or less the same and that one cannot give contours to them as K. L. Pike did to American English. Yet apart from the changes due to tonal environment as shown in the previous chapter, there remain characteristics and modulations of the voice pitch which bring out different shades of meaning. The fact is that the sentence may be spoken in different "keys" when representing different attitudes, and that the syllables, especially the final one, go through perturbation, thus giving the whole sentence a rising or falling tune.* Therefore the tones in a sentence do not determine its intonation but, on the contrary, are affected to some extent by the intonation of the sentence. Before I go further I will give two examples which may help to make this clearer.

If the sentence [$'ta \cdot d\dot{z}ia\dot{u} \cdot xuei : t[e \cdot]_2$] (Then he
他就回去呀 1↓.1↓.1↓ /went

* See p. 63 under "perturbation".

† See Part I, p. 21.

went home.) is used as a statement, then it is spoken on the pitch level between mid and low.*

If the same sentence is used as a question, then the last three unstressed syllables are pronounced in a higher pitch 1111. If the sentence is used to express protest, then not only are the last three syllables spoken in a higher pitch than the first two, but the whole sentence is spoken on a higher pitch level. Again if the short sentence 是我 [ʃr ɲo] .1N (It's me.) is spoken as a statement, it is spoken on the mid level with [ɲo] falling from high to low. Here [ɲo] retains the same tone as its naming tone, which is high-falling. When this sentence is spoken as a question, then the [ɲo] becomes high-level† though the pitch level of the whole sentence is the same as that of the statement. But if the sentence is used to represent surprise, then not only is [ɲo] pronounced with a high-level allotone but the pitch of the whole sentence is also pronounced on a high pitch level.

In this chapter I shall try to describe the intonation of some types of sentences in the Chengtu dialect, the circumstances under which they are used and the shades of meaning they convey. According to the data which I have assembled, intonation in the /Chengtu

* See Part I, p. 9; and below, p. 63 under "pitch level."

† See Part I, p. 21 to become neutral tones. Perturbations of the final syllable and of syllables receiving special stress is discussed in this chapter.

Chengtu dialect may be regarded as consisting of three factors:

- (1) The pitch level on which the sentence is spoken --- roughly divided into high, mid-high, mid, mid-low, and low.
- (2) The range of pitch the sentence covers --- divided into wide, medium, and narrow.
- (3) Perturbation of the final syllable --- As mentioned above, perturbation of the individual syllables occurs as a result of the intonation superimposed upon the sentence.* It is the final syllable alone, however, which gives the clue to the listener whether the sentence is a question or a statement, whether it has a rising or a falling tune. I must here explain that this rising or falling has no reference to the pitch of the preceding syllables, but only to the pitch of the final syllable. Thus whether I call a sentence as having a rising or falling tune depends on whether, after undergoing perturbation, its final syllable is a rising or falling tone. In the case of a rising naming tone of the final syllable being replaced by its level allotone, I classify the sentence as having a "falling" tune; and in the case of a falling naming tone being replaced by a level /allotone,

* In connected speech the perturbation of tones follows more or less the formulæ discussed in the previous chapter except that they are more inclined to become neutral tones. Perturbation of the final syllable and of syllables receiving special stress is discussed in this Chapter.

allotone, I classify the sentence as having a "rising" tune.

The examples given in this chapter are all picked out from the eight hours' conversation I recorded. Unfortunately there is scarcely one single sentence among them that is spoken with two different types of intonation. Also since the sentences have been taken out of their contexts, they may seem rather brief and abrupt. Against these disadvantages may be set the fact that all the examples are from real life situations; none of them have been spoken with "simulated emotions" or read aloud, or made up for the purpose of illustrating intonation.

I have put the examples on the attached music manuscript paper. The four spaces and the blank above the top line of each staff represent the pitch levels --- high, mid-high, mid, mid-low, and low. The intonation of the sentence is marked above the phonetic transcription. The mark [/] represents rising, [\] represents falling and [-] represents level. The difference in length of the marks represents roughly the relative time taken over the syllable uttered. In rapid conversation many words are unstressed and become neutral tones. These are marked with dots. [.] The Arabic numerals under each syllable represent the toneme, to which it belongs.

/Besides

Besides intonation I find that rhythm, stress, tempo and voice quality also help to indicate the mood or the emotional state of the speaker. But as these are not the main topic of my study I am unable, in the present dissertation, to go into these elements in detail. I shall touch upon them in a very general way.

4. Statements

The pitch level of this type of sentence is between mid and low. The range is medium.

If the statement consists of several high tones, i.e. high-rising or high-falling, then each one of them starts on a lower pitch than the preceding one. If there are several breath groups in one sentence then the first breath group is higher in pitch than the following ones.

This type of sentence has a falling tone. If the sentence ends in a high tone while the rest of the sentence are low tones the high tone naturally remains higher than the low ones, but even the high tone has an inclination to fall. The perturbation of the final syllable is as follows:

Toneme I (naming tone: high-rising) becomes mid-level.

Toneme II (naming tone: low-falling) remains low-falling.

Toneme III (naming tone: high-falling) remains high-falling.

/Toneme IV

I. ORDINARY SENTENCES.

By ordinary sentences I mean statements and questions used in ordinary polite conversation. The speaker is good-humoured and in a conversational mood. He is emotionally placid and calm, and is non-committal in what he says. He is merely stating a fact, not giving it particular emphasis.

A. Statements

The pitch level of this type of sentence is between mid and low. The range is medium.

If the statement consists of several high tones, i.e. high-rising or high-falling, then each one of them starts on a lower pitch than the preceding one. If there are several breath groups in one sentence then the first breath group is higher in pitch than the following ones.

This type of sentence has a falling tune. If the sentence ends in a high tone while the rest of the sentence are low tones the high tone naturally remains higher than the low ones, but even the high tone has an inclination to fall. The perturbation of the final syllable is as follows:

Toneme I (naming tone: high-rising) becomes mid-level.

Toneme II (naming tone: low-falling) remains low-falling.

Toneme III (naming tone: high-falling) remains high-falling.

/Toneme IV

Toneme IV (naming tone: low-falling-rising)
becomes low-low-falling checked by a
glottal stop.

As will be seen later, this is one pattern for
the perturbation of the final syllable, and is shared
by all sentences with a falling tune; sentences with
a rising tune follow another pattern.

Ordinary Sentences (Statements) (after p. 67)

1/ u dien dzog tfe 五点钟去
3 3 1 4 (He) went at 5 o'clock.

2/ mieu gog fu a 没有功夫啊
2 3 1 2 (I) have no time.

3/ noei mieu kean 我还没有看
3 3 2 4 I have not read it yet.

4/ dzin: tien tji bau 今天天气不好 (see Fig. 131)
1 1 4 2 3 It's dull today

Ordinary (statements)
Sentences

5/ ni₃ bin₄ miu₃ lin₂ y₃ o (see Fig. 132)
你並沒有霖雨哦 (you) weren't caught in the rain.

6/ no₃ e₃ djan₃ dien₃ dau₄ li₃
我給講点道理. I shall tell you something

7/ in₁ diau₄ r₄ dze₄ ian₄
音調是這樣. The tune is like this.

8/ ʒr₂ ban₃ no₃ ʃian₃ i₂ r₂ kon₃ pa₄ ie₃ bu₂ xuei₄ da₃
日本我想一時恐怕也不會打
I don't think Japan will fight just yet.

Ordinary
Sentences (Statements)

9). ηom dwei fien sən fei fəŋ gəŋ dzin
 我們對先生非常恭敬。 We respect our teachers very highly.

10). bən lai fɿ ss tʃuan di tʃe lu
 本來是四川的鐵路。 It was formerly the railway of Szechuan.

11). fu be diŋ fien
 湖北頂先 Hupeh is the earliest.

12). lee so sən oŋ xua
 奶奶說山東話。 Granny speaks Shangtung dialect.

Ordinary
sentences (statements)

13/ miu in fwei hi kan gan di ma
 2 3 4 3 4 1 1
 没有 缺 水 没 看 乾 的 味。 (You didn't water it, you see, it's dry.)

14/ tog tog fan dien guan ma ba kai ma
 1 1 1 4 1 2 1
 统 统 商 店 关 闭 味 不 闭 味。 All the shops are closed.

15/ fan guei guei iou ma
 1 1 2 3
 反 归 国 有味 It's nationalized.

B. Questions

The general pitch level of the questions is the same as that of the statements, namely, between mid and low. The range is medium.

This type of sentence has a rising tune. The perturbation of the final syllable is as follows:

Toneme I (naming tone -- high-rising) remains high-rising and often ends higher than usual.

Toneme II (naming tone -- low-falling) becomes low-level.

Toneme III (naming tone -- high-falling) becomes high-level.

Toneme IV (naming tone -- low-falling-rising) becomes low-rising.

This is the pattern for the perturbation of the final syllable in sentences with a rising tune. +

In spoken Chinese, sentences often end with particles like [a], [san], [mə], [le], [lo], 啊, 哎, 嘛, 哪, 囉 etc. These particles are meaningless by themselves but they play an important part in bringing out the intonation of the sentence and thus denote whether the sentence is a question or a statement. If the particle is pronounced on a high pitch level or with a rising tone, then the sentence is a question. If on the other hand the particle is pronounced with a falling tone, then the sentence is a statement. It may be asked whether it is these /particles

particles that fix the intonation of the sentence or whether they merely bring out the intonation more clearly to the listener by indicating whether the sentence has a rising or a falling tune. The latter explanation seems a more plausible one since the same particle can be used in different types of sentences and it is then pronounced with different tones.

These particles are often also used with unfinished sentences, in which case they are pronounced with a rising tone and give a sense of suspense to the listener. They seem to leave the sentence dangling in mid air, and the utterance is not finished.

Ordinary Sentences (Questions)

(after p. 69)

1/ ni²₃ai

dzi⁴

də

bər²

你还记得不哪?

Do you still remember it?

2/ dzi³ang

ŋəm⁴

dau⁴

li³

講什麼道理?

What shall I say?

3/ dzin¹

tien¹

ŋau¹

dau⁴

lag³

li¹

ŋin⁴

今天收到那个的信?

今天收到那个的信? Whose letter did you receive to-day?

Whose letter did you receive to-day?

4/ xuei²

lai¹

ta¹

ieu⁴

t/r²

回來他又吃?

Did she take it up again when she came back?

Ordinary Sentences (questions)

5/ lag ge da diau 那个给打掉 (see Fig. 133)
3; . 3 4 Who broke it?

6/ la b/r xən yen 那不是很远
4 24 3 3 Isn't it rather far?

7/ dɿn: tien tʃi ʃix y 今天天会下雨 (see Fig. 134)
1 1 4 4 3 It's raining to-day?

8/ ni uei ʃab tʃyen tɔŋ 你为啥不烫?
3 4 42 2 4 Why don't you iron the whole thing?

Ordinary Sentences (questions)

9/ dza uei son lan 咋会鬆口豆 (Fig. 135)
 2 4 1 How can it get loose?

10/ dziau in ue dza 就因为咱
 4 1 2 2 Do you know why?

11/ ian xo i yen nim tɕy go mia
 3 2 1 4 32 4 4 23
 養和医院你们去过没有? Have you been to the Yang Ho Hospital?

12/ lag so lio
 3 2 1
 那个說的我。 Who said so?

Ordinary Sentences (Questions)

13/ dze on dziau dzih sy xai sy wan miñ le xai sy ie man le
4 1 4 4 4 2 4 2 2 2 2 4 3 2

這種究竟是，還是文明些，還是野蠻些？ Is this, after all, civilization or barbarity?

14/ no kau zu tjr de iau don i dza ma xau so xua
3 3 2 3 1 1 3 3 2 4

我口頭吃得有東西怎麼好說話？ How can I speak with my mouth full?

15/ ko fyo dze i fa dze yon tjan a
1 2 4 4 4 2

科學這些啥子用場呀？ What's the use of science?

Unfinished sentences

1/ ni₃ ɬau₁ iŋ₁ ʔ 你收音呀.....
When you record

2/ ɬau₂₄ bu₂ dʒiəu₃ ʔ 隨後不久呀..... (see Fig. 136)
Not long after

3/ so₃ i₃ ta₁ dʒə₄ ʒən₂ i₃ lien₃ ne 呀"是他這人的臉呀.....
So, purple's faces.....

4/ dʒr₂ iəu₄ iəu₃ dʒe₄ ga₂ ʒən₂ lan₂
只要有這個人呀.....
So long as there is the man

II. EMPHATIC SENTENCES

By emphatic sentences I mean statements in which the speaker gives emphasis or prominence to some specific point. He is concerned to bring it into contrast with other points or to intensify its significance. But emotionally he is not agitated. In ordinary speech Chinese syllables are more or less evenly stressed. But in this type of sentence there is often one particular word or syllable which receives an extra stress, the word being the point emphasised. This stress on the part of the speaker seems to imply "This is what I mean."

The pitch level is between mid-high and low. The range is wide. The perturbation of the syllable receiving extra stress is as follows:

T.I. (n.t. high-rising) remains high-rising and ends yet higher than its normal pitch in an ordinary statement.

T.II (n.t. low-falling) falls yet lower.

T.III (n.t. high-falling) becomes high-level.

T.IV (n.t. low-falling-rising) remains low-falling-rising but ends in a higher pitch than usual.

Emphatic sentences have a falling tune. The perturbation of the final syllable is as follows:

T.I (n.t. high~~r~~ising) becomes mid-level.

/T.II

T.II (n.t. low-falling) remains low-falling.

T.III (n.t. high-falling) remains high-falling.

T.IV (n.t. low-falling-rising) becomes low-low-falling.

Emphatic Sentences

(after p. 71)

1/ tɕu₂ lə₁ dʒəŋ₄ dɪŋ₃ ʃiə₄ dən₃ ʒən₂

除了這個頂下等人. Except people of the lowest character

2/ ɣo₃ tɕin₁ ien₃ kan₄ au₃

我親眼看到 / saw it with my own eyes.

3/ san₁ dʒiaŋ₄ dən₄ ʃɪ₂ dʒiəu₄ dɔ₄ ma₄

三舅爺當時就大罵 Third grand uncle gave him a scolding at once.

4/ lə₄ dʒien₃ dɔ₄ lə₄ dʒien₃ dɔ₄ xe₂ ʒən₂

那簡直是, 那簡直嚇人. That's really frightening.

Emphatic Sentences

5/ miu₂₃ i₂ dien₃ tso₄
沒有一~~點~~錯 not a bit wrong

6/ ta₁ ton₁ ie₄ bu₂ si₂ 他~~們~~夜不~~息~~
They don't close through the whole night.
cf. (IV) 4

7/ san₁ doy₁ xua₄ dz2 dz2 山東話之~~耳~~
Of course it's Santung dialect.

8/ yan₄ sr₄ i₂ dien₃ bu₂ tso₄
硬是一~~點~~不錯 Really there's not a bit wrong.

Emphatic Sentences

9/ ni miu ni miu dyen xau san (see Fig. 138)

你沒有仔細有捲好嗎 = you haven't folded it properly.

10/ dziau da dau sy in gai li (see Fig. 139)

就打鼓是這樣 Even beating is quite in order.

11/ dau sy iau y iau y dze ga jau xua tai li xai (see Fig. 140)

都是由於，由於這許多歐洲化太利害 It's all due to too much European influence.

12/ ss tjuan dzai dzau ma

四川在早味 Szechuan started much earlier.

Emphatic Sentences

13/ $\begin{matrix} \text{ŋo} & \text{fiəŋ} & i & \text{diŋ} & \text{iau} & \text{uən} & ti & tʃu} \\ \text{3} & \text{3} & \text{2} & \text{4} & \text{3} & \text{4} & \text{2} & \text{2} \end{matrix}$ ləi

我想一定有问题出来。 I think there must be something wrong.

14/ $\begin{matrix} i & \text{dʒr} & \text{ma} & lə & \text{xən} & \text{dʒiəu} & e \\ \text{2} & \text{2} & \text{4} & \text{2} & \text{3} & \text{3} & \text{2} \end{matrix}$

一直等了很久。 He waited for a very long period of time.

15/ $\begin{matrix} \text{sui} & \text{ŋo} & \text{mei} & \text{fəŋ} & \text{ge} & \text{lə} & \text{fo} & \text{li} & \text{fo} & \text{li} & \text{ma} & \text{iau} & \text{tsə} \\ \text{3} & \text{3} & \text{3} & \text{2} & \text{1} & \text{1} & \text{2} & \text{1} & \text{2} & \text{1} & \text{4} & \text{2} & \text{3} & \text{4} \end{matrix}$

所以我每逢给他说的，说的话没有错。 So every time what I told him was never wrong.

III. SENTENCES EXPRESSING CERTAIN ATTITUDES OR EMOTIONAL STATES.

When we speak, we may merely be stating a fact or giving special emphasis to certain points. But sometimes we may want to do more; we want also to convey our personal reactions or attitudes to our listener or to express our feelings as well. Under these circumstances our emotion is a predominant element; therefore the intonation we use is different from that we use when speaking under unemotional circumstances.

In this section I shall describe the intonation of several types of sentences which express different attitudes or emotions. The seven types of sentences that I chose are:

- (1) sentences expressing emphatic approval,
- (2) sentences expressing vexation,
- (3) sentences expressing awe,
- (4) sentences expressing contempt,
- (5) sentences containing a protest,
- (6) sentences expressing surprise,
- (7) sentences implying dismissal of the topic.

(1) Sentences expressing emphatic approval:

By these I mean statements in which the speaker is very sure of himself and at the same time is in perfect accord with what the last speaker has just uttered. There is a sort of finality in his sentence. It implies "that's that," or "I know it is so". In showing approval the sense involved is "Quite right!" or "That's just it!"

The pitch level of this type of sentence is between mid-high and low. The range is wide.

This type of sentence has a falling tune. The perturbation of the final syllable is as follows:

T.I (n.t. high-rising) becomes mid-level.

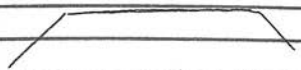
T.II (n.t. low-falling) remains low-falling.

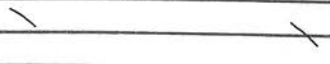
T.III (n.t. high-falling) remains high-falling.

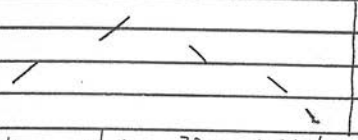
T.IV (n.t. low-falling-rising) becomes low-low-falling.

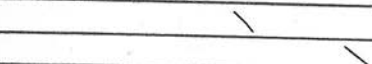
Sentences expressing emphatic approval

(after p. 73)

1/ 
 duēi duēi wēi (see Fig. 137)
 4 4 4
 啞! 對, 對, 對. Yes, right, quite right!

2/ 
 shí nián
 2 3 2
 十幾年 Ten years or more.

3/ 
 dāng rán mài de
 4 1 4 2 1 2 4 2
 耶當然賣得. Of course they are selling well.

4/ 
 tōng yè bù xiū
 1 4 2 2
 通夜不息. They don't close in the night.

Sentences expressing emphatic approval

5) la₄ bien₁ dɣiəu₄ ɣv₄ dɣiəu₃ loŋ₂ ʃən₁
 那边就是九龍嶺. Kowloon is on the other side.

6) mi₃ ɣv₄ tsən₂ ʒən₃
 你是殘忍. You are cruel.

7) ta₁ tsai₂ iəu₃ tɕyən₂ gai₃ ʃən₁
 他才有权改. Only he has the authority to change.

8) ʃwei₂ ɔu₄ sɿ₄ tɕuan₁ dɣiəu₄ lau₄ mɔ₃ da₃ mɔ₃
 隨後四川就鬧味, 打味. Then Sichuen started demonstration and fighting.

(2) Sentences expressing vexation or annoyance:

This type of sentence is used when the speaker is in a bad mood. He is trying to start an argument. What is implied seems to be "Now I ask you" or "It's all your own fault, so" or "How can you ask such a stupid question?"

The pitch level of this type of sentence is between high and mid. The range is medium. It has a rising tune. The perturbation of the final syllable is as follows:

T.I (n.t. high-rising) remains high-rising.

T.II (n.t. low-falling) becomes low-level.

There is a tendency for the speaker to add a particle after the final syllable if it should happen to be Toneme II; the particle is invariably pronounced on a higher level than the end point of Toneme II.)

T.III (n.t. high-falling) becomes high-level.

Sometimes it even has a very slight rise.

T.IV (n.t. low-falling-rising) becomes low-rising.

Sentences expressing vexation or annoyance (after p. 74)

1/ la₄ dzag₂ t/r₂ fan san₄ 那咱自个吃啥呢?
How can you eat this?

2/ jo₃ bu₂ t/r₂ jo₃ dza₂ go₄ di₁ 我咋的没带好
I didn't eat it, how did I manage then?

3/ ni₃ mia₂ dzyen₃ au₃ r₁ dze₄ r₄ mia₂ dzyen₃ xau₃
你还没有卷好哪, 这是没有卷好. You didn't fold it well; didn't fold it well!

4/ dze₄ fa₄ dz₂ wan₂ min₂ tsau₄ dzau₄ lan₁

这啥子文明造就的? What civilization is this? Printed in England by Augener Ltd., Acton Lane, Lond

Sentences expressing vexation or annoyance

5. tjoien dzag ju ni du go san
 從前這本書你讀過嗎。 You have certainly studied this before.

6. bian la lan gai ran si / 人那能改口。
 2 3 2 3 1 1
 How can others change it?

7. la ta e ni dza tay li
 4 1 1 3 2 4 1
 那他給你熨過的。 How did he iron it for you?

8. ni miu dyen xae
 3 2 3 3
 你沒有捲好。 You didn't fold it properly.

Sentences expressing vexation or annoyance

9. ni₃ si₃ dze₄ dau₄ li₃ 你想這道理
Just you think of this reason.

10. dzu₄ bu₂ sia₄ tje₄ 做不下去
He couldn't go on.

11. ma₂ iau₃ fa₄ tsai₄ iau₃ fa₄ tsai₄ (See Fig. 141)
沒有啥菜有^有啥菜. There aren't any vegetables.

12. ni₃ xan₃ ho₃ i₂ go₄ go₄ dz₄ so₂ san₂
你喊我一個字讀吐

You told me to read word by word.

Sentences expressing vexation or annoyance

13). la₄ bə₂ gnan₃ ɲo₃ tʃoŋ₂ tʃien₂ dʒiə₄ bu₂ xau₄ tʃr₂

我不管, 我從前就不好。 That doesn't count; I was never gluttonous.

14). ɲo₃ dzai₄ ʃie₃ ʃiŋ₄ ɲo₃ dza₂ gə₃ dʒiaŋ₃ de₂ tʃu₂

我在写信, 我咋个講得出? How can I talk when I'm writing a letter?

15). ʃaŋ₄ dʒin₃ la₂ ta₂ dza₂ xuei₄ soŋ

上緊啲, 他咋會鬆? It can't get loose if you have tightened it.

(3) Sentences expressing awe

This kind of sentence is used when the speaker wants to show that what he is talking about is something of great importance. He wants to impress his listener and at the same time to convey the idea that he himself is impressed by what he is trying to tell. In other words, he wants to create awe among his listeners. What is implied is "This is something wonderful!" or "That's terrific!"

This type of sentence is spoken on a low pitch, varying between mid-low and low. The range is narrow and all the tones seem to be compressed together; therefore there is a tendency for all the tones to become level. Both the rising and the falling of tones are very slight. The sentence has a falling tune. The perturbation of the final syllable is as follows:

Toneme I (n.t. high-rising) becomes mid-level.

Toneme II (n.t. low-falling) remains low-falling.

Toneme III (n.t. high-falling) remains high-falling.

Toneme IV (n.t. low-falling-rising) becomes low-low-falling.

The voice quality in this type of sentence is often "breathy" or "husky".

Sentences expressing awe

(after p. 75)

1. / la₄ džen₃ / r₄ / ɣən₂ fu₂ tʃi₂ / ɣən₂ 那簡直是神乎其神
It's like a miracle.

2. / džen₁ / la₂ / ta₂ 真垃圾
Very dirty indeed!

3. / la₄ xau₃ de₁ xən₃ 那好得很
It's really good.

4. / la₄ džen₁ / r₄ xau₃ xən₃ 那真是好得很
It's really very good.

Sentences expressing one

5. /a₄ uei₂ jien₃ de₂ xan₃ 那危險得很
It's very dangerous.

6. /dʒiəu₄ i₂ dʒr₂ die₂ jia₄ tʃe₄ 就一直跌下去
It kept on dropping.

7. /dau₁ fr₄ xan₃ da₄ xan₃ da₄ 量很大很大
It's very big.

8. /a₄ frəu_{2,4} in₄ gəi₁ gə₁ a₁ jyo₂ 那時候應該跟他學
Ought to have learned from

Sentences expressing RWE

9. ⁴da ³li ³jiau ²li ³ba ³jiau ¹do ³jau
 大的小的不曉得多少, Both big & small; I don't know how many
 there were.

10. ¹guan ³ji ⁴tai ⁴da 關係太大
 Too many things are involved.

11. ⁴tiau ⁴jan ⁴tiau ⁴sia ⁴di ⁴dzam ⁴tiau
 跳上跳下的這麼跳, Jumping up and down like that!

12. ⁴dze ⁴ji ⁴dze ⁴da ¹li ⁴tso ⁴u
 這是絕大的錯誤
 This is a very big mistake.

Sentences expressing awe

13/

谁

dza
2

会

xuei
4

晓得

xiu
3

得

de
2

他

ta
1

How could he know him! (how wonderful!)

(4) Sentences expressing contempt:

This type of sentence is used when the speaker is in a contemptuous frame of mind. He is ready to snap at the person spoken to and to close the conversation as soon as possible. The sentence implies "This is impossible", or "What nonsense you are talking about" or "Let's proceed no more".

The pitch level is between mid-high and low. The range is wide. The characteristic feature of this type of sentence is that one syllable in it is always lengthened. The syllables which come before or after the lengthened one are usually huddled together and spoken quickly; thus they often become neutral tones. The perturbation of the lengthened syllable is as follows:

T.I. (n.t. high-rising) remains high-rising and rises higher than usual.

T.II (n.t. low-falling) falls lower than usual.

T.III (n.t. high-falling) starts higher than usual and also falls lower.

T.IV (n.t. low-falling-rising) becomes low-rising and ends at a point higher than ordinary.

This type of sentence has a falling tune. The perturbation of the final syllable is as follows:

T.I (n.t. high-rising) becomes mid-level.

/T.II

T.II (n.t. low-falling) remains low-falling.

T.III (n.t. high-falling) remains high-falling.

T.IV (n.t. low-falling-rising) becomes low-low-falling.

But, as stated above, the lengthening of a particular syllable affects the lengths of the other syllables in the sentence. Therefore, it is not infrequent that the final syllables become neutral tones.

Sentences expressing contempt

(after p. 77)

1. jau₄ ni₃ ɔ₂ de dʒwən₃ san
 要你說得準。 You have to predict correctly.

2. ɣ₄ ɟi₂ tien₁ dʒiə₄ dau₄ la
 二十幾天就到哪? How can it arrive in about 20 days?

3. la₄ li₃ xue₄ tʃad₂ uən₂ 那裡會查得完? (Fig. 142)
 How can they finish examining?

4. ɲo₃ ʃau₃ ʃa₄ ɲo₃ ʃau₃
 我小啥, 我小? Me, timid? Me!?

Sentences expressing contempt

5/ la₄ dɔŋ₃ iə:₄ dʒi₃ tʃien₁ ʒən₂ lai₂ tʃa₂

那得要幾千人來查, You'll need several thousand people to censor (the letters).

6/ la₃ xue₄ mə₂ iəu₃ dɛ:₁ ʒ₂

那會沒有智識! How can they be ignorant!

7/ ta₁ dɑŋ₁ ʒən₂ dɔŋ₃ dʒa₂ xue₄ bu₂

他當然懂, 咱會不? Of course he understands; how can it be otherwise?

8/ ŋi₃ ʃiɑŋ₃ ʃɿ₄ ʒi₄ ʃɑŋ₄ iəu₃ dʒɛ₄ dʒɿ₁ sɿ₄ tʃin₂

你想世界上有這種事情. Just you think, are ~~you~~ there such things in the world?!

Sentences expressing contempt

9/ lāi dzam bien dan
3 4 4 4
那有這麼便當: How can it be so easy?

10/ tā lien u jiā tā ieb jiāu de tā
1 2 1 2 3 2 1
他連巫峽他也不曉得. He didn't even know the Yangtze Gorges.

11/ lā dāu fā jiā fū luan sō
4 1 4 2 2 4 2
那都是瞎胡亂說. That's all nonsense.

12/ nī iāu fā y fān
3 3 4 4 2
你有啥用場? What's the use?

Sentences expressing contempt

13/ $\text{d}a\text{ŋ}_1$ $\text{ʒ}a\text{n}_2$
當然, Of course (it is so).

14/ $\text{d}a\text{a}_2$ $gə$ $xwɛ_4$ $dɛ_2$
「咋个会得」 How can it be (indeed!)

15/ $iŋ$ li_2 $hjen_2$ $də\text{a}_2$ $xwɛ_4$ lai_2 $lɔ_1$

「陰曆年咋會來啲」 How can it arrive within the lunar year!

(5) Sentences containing a protest:

This type of sentence is used when the speaker is greatly agitated or excited. It is often used in an argument when the speaker hopes to shout his opponent down. Unlike sentences expressing vexation, the speaker is not deliberately starting an argument. On the contrary, he is the victim; he is being provoked. He is anxious to make himself understood. Under these circumstances, the listener is often also trying to talk at the same time; the result therefore is that this type of sentence is usually spoken throughout on a high pitch level, between high and mid-high. Sometimes the sentence may start on a high pitch level and then fall to low, but one feels it is the high-pitched part of the sentence that contains the protest, because by the time the voice pitch falls to low, the speaker's emotional state has returned to normal. Also it is not infrequent that the sentence is left unfinished.

The range of this type of sentence is narrow. It has a rising tune. The perturbation of the final syllable is as follows:

T.I (n.t. high-rising) remains high-rising.

T.II (n.t. low-falling) becomes low-level.

T.III (n.t. high-falling) becomes high-level.

T.IV (n.t. low-falling-rising) becomes low-rising.

The tempo in which this type of sentence is spoken is very fast.

Sentences containing a protest (after p.78)

1/ ta₁ ab₂₃/r₄ ian₃ ta₁ 他還不是養他
It's also supporting him!

2/ f₁r₂ x₃ he₄ lan₃ xa₄ la₁ in₂ ue₂ dza₁ (Fig. 143)
是, 唉, 噯, 喂, 嚇, 哇, 因為, 口. Yes, ah, who's afraid? It's because.....

3/ d₁oŋ₂ g₂ue₂ t₂₃ioien₂ ta₁ d₂₃oŋ₂ ta₁ in₂ ue₂ ta₁ d₄e₁ i₁
中國從前, 他這, 他因為, 他這些..... China formerly, it is, it's because.....

4/ k₃o₃ i₃ fa₁y ge₁ d₃ian₃ d₃ian₃ d₃ian₃
可以講翻給, 講, 講, 講 You may translate that, yes, yes, yes.

Sentences containing a protest

5/ ni₃ dzu₃ dɔŋ₁ də₁ bu₂ ɣoŋ₄ ni₃ la₃ li₃ ni₃ la₃ li₃

你祖宗都不供, 你那裡, 你那裡..... If you don't even worship your ancestors, then how can you.....

6/ dʒe₄ ʃr₄ di₂ r₂ tʃie₃ tʃyo₃ di₂ r₂ tʃie₃ tʃyo₃ di₁

這是的確的而且確的, 的確的而且確的. This is absolutely true.

7/ la₄ ɣo₄ ʃr₄ lag₄ ta₁ dʒə₃ mə₃ ʃiaud₃ ta₁

那個是, 那個他怎麼曉得他... It's because, well, how did he know.....

8/ dʒr₃ lən₂ tʃyən₄ ʋən₃ tʃyən₄ de₂

只能勸, 婉勸得 You can only persuade gently.

Sentences containing a protest

¹ ⁴ ⁴ ² ⁴ ² ³ ³ ¹ ² ⁴
 q' dze li dien ba jiau dzi tien xaid mai 這裡店不曉幾天還在賣
 The shops here are always selling them no matter how many days they've had them.

¹ ² ⁴ ³ ² ⁴ ² ⁴ ² ⁴ ³ ³ ⁴ ³ ² ³ ³ ² ³ ⁴ ⁴ ³ ¹ ³ ³ ³ ² ²
 10/b' lang bu dze zan hai fu mu an ni kan go man fr dzog go fo ni dzan dzem da ni gan dau go dzi fr nien
 不是咱不自然愛父母噯你看我們始終我說你長這麼大你跟我幾十年
 Why not? of course we love our parents. I say you have grown up with me so many years

⁴ ³ ³ ² ¹ ³ ³ ³ ⁴ ² ² ² ² ²
 kan da go fr ting da go dzian dy ie ie ba ba m nia m
 看到我聽到我講句爺=爸=母, 娘. 母. 奶=不對
 have you even heard me say anything against your grand parents?

³ ³ ² ⁴ ¹ ⁴ ² ³
 lai lai bu dwei li xha mia
 的話沒有

Sentences containing a protest

11. i₂ ian₄ mǎ₁ tʃian₄ ɣom li mien₃ bau lai₄ fr₁ tʃr₄ dan tien₄ tʃr₁ lan₂
 一樣味像我們的麵包那裡是吃, 當天吃口肉. It's the same; we never finish our bread on the same day.

12. fu₄ mǎ₃ tʃr₂ mǎ₁ la₄ mǎ₁ tʃian₂ fum₄ fu₄ mǎ₃
 父母吃煙, 那麼求父母, 父母. If the parents take (opium) you can only beg them (not to).

13. dea₂ ba₂ fr₄ fr₄ tan₂ xua₄ ɲo₃ dʒin₃ o₃ bai₃ dʒian₁ ei₁ tin₂ (Fig. 144)
 咱不是, 是談話, 我儘可(是)擺, 講給(你)聽. Of course this is³ conversation; I talk while you listen.

14. lam₄ tʃuai₂ si₃ i₃ dian₄ dʒian₄ au₄ a₁ lan₂ la₄ tʃy₄ (Fig. 145)
 那么去了洗衣店就到阿倫那去. We can go to Dr. Allen's after we've been to the cleaners.

(6) Sentences expressing surprise:

This type of sentence is used when the speaker is taken by surprise or is puzzled. It implies incredulity as well. It means "Really?!" or "Can this be true?"

The pitch level is between high and mid-low. It starts at about mid-high or high and usually ends at mid. It never ends below mid-low.*

The range is wide.

This type of sentence has a falling tune. The perturbation of the final syllable is as follows:

T.I (n.t. high-rising) becomes mid-level, sometimes with even a very slight fall.

T.II (n.t. low-falling) remains low-falling.

T.III (n.t. high-falling) remains high-falling.

T.IV (n.t. low-falling-rising) becomes low-low-falling.

If the Ordinary Sentences of p. above are taken as the norm, the tempo of this type of sentence is fast, though it is not so fast as that of sentences containing a protest (p. above).

* Often a single interjection is used to express the surprise instead of a sentence then it invariably has a rising tone starting from mid-high.

Sentences expressing surprise

(after p.79)

1/ dāu xuei bei de 前会背得
I can memorize it all. (I am surprised that you don't know off this.)

2/ ta bu jiu de la
他也不是收到哪。Hasn't he received it?!

3/ ie mie dzo go
也没有到。You haven't been on it either?

4/ dze ss ju an la iou ma (Fig. 146)
这四书上都有味。It's in the classics. (Don't you remember?)

Sentences expressing surprise

5. ɲo₃ ɲo₃ dza₂ bu₄ ʃuən₂ tʃue₄
我, 我 咱 不 纯 料. Why wasn't mine pure?

6. ɲob₂ dɔŋ₃ dze₄ gə₄ (see Fig. 147)
我 不 懂 这 个... I don't understand.....

7. ta₁ zu₂ xo₂ xuei₄ kan₄ de₄ dze₄ ʃian₁ fən₂
他 如 何 会 看 得 这 个 本 样 神. How can he see all this!

8. ta₁ bai₃ dæ₃ ʃa₄ di₄ fən₁
他 摆 到 啥 地 方. Where can he put it?

sentences expressing surprise

9/ xai₂ iau₃ fa₄ di₄ fan₁

还有啥地方: Where else?

10/ san₁ di₃ mia₂ t'fy₄ go₄

山顶没有去过啊, You haven't been to the hill top?

11/ nim₃ fan₁ fan₃ fan₄ o₁ dzon₁ ue₂ t'fa₂ lau₂ mia₂

你们香港上過中國茶樓沒有啊? Have you^{not} been to the Chinese tea room in Hongkong?

o an ie

哦! 啊! 噫!

(7) Sentences implying a dismissal of the topic:

This type of sentence is used when the speaker is preoccupied with something else. This does not mean that the speaker wants to put a stop to the conversation, nor is this type of sentence as forbidding as those expressing contempt and vexation. In this case, the speaker merely wants to pass on to another topic. It is used to dismiss the subject matter but not the person spoken to. It implies "Never mind this; it's not important."

The pitch level is between mid-low and low. The range is narrow; therefore the rising and falling of the tones are very slight.

This type of sentence has a falling tune. The perturbation of the final syllable is as follows:

T.I (n.t. high-rising) becomes mid-level.

T.II (n.t. low-falling) remains low-falling.

T.III (n.t. high-falling) remains high-falling.

T.IV (n.t. low-falling-rising) becomes low-low-falling.

Sentences implying a dismissal of the topic (after p 80)

1. lag ge ta di 那个给他的
3 1 1 1 who gave it to him?

2. man xau ma 嘛好味
3 3 2 Pretty good.

3. ni t/r go fa 你知道啥
3 2 4 4 what d. you have?

4. la d'oy fr gau dau fr i dien fr r dien d'oy
4 3 4 3 3 2 2 3 2 4 3 1
那总是搞到十一或十二点钟
It's always about eleven or twelve o'clock.

Sentences implying a dismissal of the Topic

5/ tʃe₄ uan₂ 去玩 (I went) to entertain myself.

6/ i₃ dʒɪn₁ pau₃ diau₄ lo₃ 已经跑掉了
(He's) already escaped.

7/ dʒɪn₁ ʒan₂ ʃv₄ dʒɪn₁ di₁ 当然是真的。
of course it's true.

8/ tʃi₂ ʃv₂ dʒi₃ swei₄ ba₂ 七十几岁吧
(He's) about 70.

Sentences implying a dismissal of the topic

9/. dʒi₄ bu₂ dau₃ 記不到
(1) Can't remember.

10/. i₂ dʒr₂ jia₄ tje₁ a₂ 一直下去阿
Straight on?

11/. bo₂ fiau₃ de₂ 不知道
(1) don't know.

12/. la₄ f₄ xən₃ fəu₃ xən₃ fəu₃ di₃ 那是很少很少的。
That's very rare.

Sentences implying a dismissal of the topic

13. mǐu
2 3

xǐ
2

dǎi
4

没有还在
No, (he's) still living.

14. kàn
4

jū
1

fāng
2

dì
1

看書房的
He looks after the classroom.

15. tān
1 2

biào
2 3

tā
4

kān
4

mā
2

kān
4

他们不曉去看沒有。
I don't know whether they have been or not.

16.

mā
2

jiū
3

dōu
1

mǐu
2 3

dì
1

沒有, 都沒有。
No, none has them.

From the results given above, we may draw the following conclusions:

1. There is a definite relationship between pitch level and the type of sentence. For instance, sentences containing a protest are spoken on a high pitch level whereas sentences implying dismissal of the topic are spoken on a low pitch level. But it is difficult to make any general statements on this relationship.
2. (a) The range of the pitch varies with the type of sentence. Sentences containing a protest and sentences implying dismissal of the topic have completely different pitch levels, yet both have a narrow range. On the other hand, emphatic sentences and sentences expressing contempt, for example, both have a narrow range. Ordinary statements and questions have a medium range. Thus, the range is at least a clue to the emotional state of the speaker.
- (b) When the range of a sentence is narrow, there is a tendency for all the tones to

/become

become level, i.e., the rise and fall of the tones are very slight.

3. (a) The perturbation of tones of the final syllable in the sentence follow two distinct patterns. In sentences with a rising tune, i.e., in which the final syllable is a "rising" tone, the perturbation is as follows:

T.I (n.t. high-rising) remains high-rising.

T.II (n.t. low-falling) becomes low-level.

T.III (n.t. high-falling) becomes high-level.

T.IV (n.t. low-falling-rising) becomes low-rising.

In sentences with a falling tune, i.e., in which the final syllable is a "falling" tone, it is as follows:

T.I (n.t. high-rising) becomes mid-level.

T.II (n.t. low-falling) remains low-falling.

T.III (n.t. high-falling) remains high-falling.

T.IV (n.t. low-falling-rising) becomes low-low-falling.

/(b)

(b) The two tones are used for different types of sentences. The rising tone is used for

- (1) questions requiring an answer other than yes or no,
- (2) sentences expressing vexation,
- (3) sentences containing a protest,
- (4) unfinished sentences,

The falling tone is used for

- (1) ordinary and emphatic statements,
- (2) sentences expressing emphatic approval,
- (3) sentences expressing awe,
- (4) sentences expressing contempt,
- (5) sentences expressing surprise,
- (6) sentences implying dismissal.

tones which formed the study of the tones in the first part of this thesis.

Third, intonation also exists in the Chongqing dialect. It is superimposed on the whole sentence. And it is this superimposed intonation that modifies the individual tones and not the individual tones that decide the intonation of the whole sentence.

My purpose in undertaking this study can be said to be twofold. On one hand, it is my hope that the work

CONCLUSIONS.

Having described in Chapter I the tones and their behaviour in the Chengtu dialect and analysed in Chapter II the intonation of some types of sentences, I am now able to present the following general conclusions:

First, tones pronounced in isolation behave differently from those pronounced in connected speech. In connected speech they go through perturbation. This is usually governed by the position they occupy in the phrase or by the tonal environment. It may also be governed by grammatical structure, though this does not form part of my present inquiry.

Second, besides the four naming tones in the Chengtu dialect, I found six other tones which, together with those naming tones, could be grouped into four tonemes. It is the interchange of these tones which formed the study of the tonal behaviour in the first part of this thesis.

Third, intonation does exist in the Chengtu dialect. It is superimposed on the whole sentence. And it is this superimposed intonation that modifies the individual tones and not the individual tones that decide the intonation of the sentence.

My purpose in undertaking this study has been twofold. On one hand, it is my hope that the work

/may

may serve as a teaching manual for intonation in the Chengtu dialect. In the process of acquiring the right intonation, the advanced student may find the numerous examples useful. Though they are taken only from the speech of two people (the informant and myself), they more or less represent the main speech characteristics of the Chengtu dialect.

On the other hand, the material I assembled and particularly the conclusions I reached may be of some value to students of other dialects. Tone sandhi has already been studied in many Chinese dialects*, though without the help of the more modern instruments. It would be desirable for similar work to be done on intonation†. A very interesting question is whether in other dialects intonation is also indicated by the perturbation of one particular syllable, which in the case of the Chengtu dialect is the final syllable. It would also be interesting to know if the resulting tunes could be divided neatly into two or more patterns. If a number of other dialects could be studied along lines similar to the present inquiry, we could then perhaps come to a more general explanation of tonal behaviour and intonation in the Chinese dialects.

* Chiu, Bien-Ming: "The Tone Behaviour in Hagu",
 Kao, Ming-Kai: "The Sandhi Phenomenon of the Foochow
 Dialect",
 Lü Hsiang: "Tone-Sandi in the Tang-Yang dialect."

† Y.R. Chao has written on intonation in Mandarin in
 "Tone and Intonation in Chinese".

APPENDIX The Method of Obtaining Intonation
Curves from the Spectrograms.

Though the sound spectrograph is not made mainly for detecting the pitch of sounds yet the spectrograms show unmistakably the inflection of the voice. By using the narrow band * the individual harmonics of the vocal cord tone are visible. These tracings show clearly the inflections (or modulations) of syllables (i.e. whether they are rising or falling or level etc). At the same time we can also note the differences of pitch between syllables by observing the spaces between the horizontal lines. The reason for this is: the wider the space (i.e. the wider apart the lines), the higher the frequency, therefore, the higher the pitch.

In order to show their relative difference in pitch I have plotted some tracings on graph paper. The vertical scale represents frequency and the horizontal, time. The calibration unit is set at 500 c/sec; the space between one calibration line and the next is approximately equal to $\frac{1}{4}$ " (degree of error = \pm 5%) ($\frac{1}{10}$ " in 2" out; 200 out in 4000 \therefore 5 out in 100; \therefore 5%) I first measure the distance from the baseline to the highest harmonic below which all the harmonics are clearly shown, then having calculated the frequency this represents, I divide this frequency by the number
of

* The filter has a pass band width of 45 c.p.s.

of harmonics counted. The result obtained is the fundamental of that particular syllable I am measuring. For example, if the distance between the fifth harmonic and the baseline is $\frac{4}{10}$ "; 4 then is multiplied by 200 and the result is divided by 5. The final result, 160, would be the fundamental. We should, of course, measure every turning point of the harmonics (i.e. the maxima and minima of the curves). Then by joining the dots (i.e. the fundamental) which we put on the graph paper we get the graph we need. This graph, in fact, coincides in shape with the curve of the actual tracings of the corresponding sonogram, only the plotted graph gives a definite frequency. However, we have to bear in mind that not every sonogram can be thus plotted, e.g. syllables spoken in other than normal voice quality, or spoken while laughing etc. Then a large amount of noise would accompany the vibration of the vocal cords and the tracings of the harmonics are thus smudged by the interference. I should also point out that sometimes the tracings are rather thick and it is hard to decide which part of the thick lines should be taken as the calculating point (i.e. taken into measure). In such a case I usually take the middle of the line.

For my present purpose, which is to find out

/approximately

approximately the inflections of the voice by finding out the fundamentals of the syllables and to check the tracings with the notations I took down by ear, this process proves very helpful and mainly satisfactory.

Bibliography on the spectrograph:

- Potter, Kopp, and Green, Visible Speech, New York, 1947
- Martin Joos, Acoustic Phonetics, Linguistic Society of America 1948.
- Peter Ladefoged, Looking at Speech, (in manuscript) 1952.

B I B L I O G R A P H Y

Armstrong, Liliias E. The Phonetic and Tonal Structure of Kikuyu. London, 1940.

and Ward, Ida C. Handbook of English Intonation. Leipzig & Berlin, 1926.

Barker, M.L. Handbook of German Intonation. Cambridge, 1925

Beach, D.M. Phonetics in Pekingese. (Ph.D. Thesis, 1923, University College, London).

Bell Telephone System Monograph. B-1415. New York, 1946.

Bonner, Miriam R. "Changes in the Speech Pattern under Emotional Tension", American Journal of Psychology. LVI (April 1943), 262-73.

Bradley, Cornelius B. "On Plotting the Inflections of the Voice", University of California Publications in American Archaeology & Ethnology. XII, No.5 (Oct.11, 1916) 195-218.

Chao, Y.R. "A Preliminary Study of English Intonation (with American Variants) and Its Chinese Equivalents" in The Ts'ai Yuan P'ei Anniversary Volume (Supplementary Vol. I of The Bulletin of the National Research Institute of History & Philology of the Academia Sinica, Peiping, 1932.

----- Mandarin Primer. Cambridge, Mass. 1948.

----- "Tone & Intonation in Chinese". Bulletin of the National Research Institute of History & Philology of the Academia Sinica. IV. pt.2 (1933), 121-34.

----- "Introduction" to A Chinese-English Dictionary by Robert H. Mathews, Cambridge, Mass. 1943.

----- "A Note on Rate" in La Maître Phonétique, 3rd Series, LII, (July-Sept. 1937), 38-9.

----- "A System of Tone Letters", La Maître Phonétique 3rd Series XLV. (April-June 1930) 24-27.

Chiu, Bien-Ming. "Chinese (Amoy Dialect)", La Maître Phonétique XLV (April-June 1930) 38-40.

----- "The Tone Behaviour in Hagu: An Experimental Study". Archives Néerlandaises de Phonétique Expérimentale, VI (1931) 6-45.

- Coleman, H.O. Intonation and Emphasis. In Miscellanea Phonetica to commemorate the 25th Year of Le Maître Phonétique. International Phonetic Association, 1914 (Monograph Supplement to Le Maître Phonétique.)
- Cornyn, N. Outline of Burmese Grammar. Language Dissertation No. 38 (Supplement to Language) Baltimore, 1944.
- Coustenable, H.N. & Armstrong, L.E. Studies in French Intonation, Cambridge, 1934.
- De Angulo, Jaime. "Cantonese Dialect of Chinese" Le Maître Phonétique. 3rd Series LII (Oct. - Dec. 1937). 69-70.
- Ellis, W.W. The Symbolization of Intonation: A Historical Study. M.A. Thesis, Louisiana State University 1949. Abstracted in Speech Monographs XVII, No. 3, 1950 Aug.
- Firth, J.R. & Rogers, B.B. "The Structure of the Chinese Monosyllable in a Huânese Dialect (Changsha)" Bulletin of the School of Oriental Studies, University of London. VIII. (1935-37) 1055-74.
- Fischer-Jørgensen, E. "Pike's Analysis of American English Intonation", Lingua II. Aug. 1949.
- Gjerdman, O. "Critical Remarks on Intonation Research". Bulletin of the School of Oriental Studies, London Institution, III (1923-25), 495-505.
- Guthrie, Malcolm. "Tone Ranges in a Two-Tone Language (Lingala)". Bulletin of the School of Oriental and African Studies, University of London, X, (1940-42), 469-78.
- Haugen, Einar I. "Intonation Patterns in American Norwegian". Language XVII, (Jan. 1941), 40-48.
- Hermann, Eduard. "Chinesisch", Probleme der Frage 2. Teil, p.249. Nachrichten der Akademie der Wissenschaften in Göttingen, Philologisch-Historische Klasse, 1942.
- Hockett, C.F. "Peiping Phonology". Journal of the American Oriental Society. LXVII (Oct. - Dec. 1947), 253-67.
- Hoijer, Harry. "Pitch Accent in the Apachean Languages", in Language XIX (Jan. 1943), 38-41.

- Jimbo, K. "The Word-Tone of the Standard Japanese Language". Bulletin of the School of Oriental Studies, London Institution, III (1923-25), 659-67.
- Jones, D. The Pronunciation of English, Cambridge, 1950.
(3rd edition)
- The Phoneme: Its nature and use, Cambridge, 1950.
- An Outline of English Phonetics, Cambridge, 1947.
(6th edition)
- "Chronemes and Tonemes", Acta Linguistica,
Copenhagen IV, 1944. 1-10.
-
- and Woo, K.T. A Cantonese Phonetic Reader, London, 1912.
- (A note, without Title, on the Application of
the Term Phoneme to Intonation and the Like).
Le Maître Phonétique, 3rd Series, XLVI (April-June 1934), 54.
- Joos, Martin. Acoustic Phonetics. Language Monographs.
Baltimore, 1948.
- Kao, Ming-Kai. "The Sandhi Phenomenon of the Foochow
Dialect," Yen Ching Journal of Chinese Studies, Dec. 1947
- Karlgren, B. "The Principles of the phonetic compounds";
Introduction to Analytic Dictionary of Chinese and
Sino-Japanese, Paris, 1923, 16.
- "The phonetic system of Ancient Chinese (Ts'ie
jün)".
Introduction to Analytic Dictionary of Chinese &
Sino-Japanese, Paris 1923, 9.
- Kingdon, R. "The Teaching of English Intonation",
English Language Teaching. II, Nos. 4, 5, 6, & III, No.1.
- "Tonetic Stress Marks for English" Le Maître
Phonétique, 3rd Series LIV (Oct. - Dec. 1939). 60-4.
- Knock, Carl J. "Visual Training of the Pitch of the Voice",
University of Iowa Studies in Psychology, VIII (1922),
102-27; Psychological Monographs XXXI, No. 1.
- Knower, F.H. "Analysis of Some Experimental Variations
of Simulated Vocal Expressions of the Emotions".
Journal of Social Psychology, XIV (Nov. 1941), 369-72.
- Ladefoged, P. "Looking at Speech" (in manuscript) 1952.
- Liu, Nien-ho: "A Secret Language Among the Children of
Chengtu", Bulletin of Chinese Studies, IV, pt. 2.
Sept. 1944, 69 (in Chinese).

Lü, Hsiang. "Tone Sandhi in the Tan-Yang Dialect",
Bulletin of Chinese Studies, VII, Sept. 1947
(in Chinese)

MacCarthy, P.A.D. English Pronunciation, Cambridge 1950.
(4th ed.)

Malmquist, G. "A Phonological Description of Some
Irregular Tone Phenomena in the Dialect of Omei,
Szechwan," Studia Serica, Chengtu and Peking, 1950.
IX, Pt. 2, 89-93.

----- "Some Observations on the Tone Manifesta-
tions of a Chengtu Dialect" in Studia Serica IX,
Pt. 2, 1950, 55.

Malone, Kemp. "Pitch Patterns in English". Studies in
Philology, XXIII (July, 1926), 371-9.

Merry, Glenn N. "Voice Inflections in Speech",
University of Iowa Studies in Psychology, VIII (1922),
205-9; Psychological Monographs, Vol. XXI, No.1.

Palmer, Harold E. Everyday Sentences in Spoken English.
Cambridge, 1927.

----- English Intonation, Cambridge, 1922.

Parmenter, C.E. & Treviño, S.N. "A Technique for the
Analysis of Pitch in Connected Discourse", in Archives
Néerlandaises de Phonétique Expérimentale, VII (1932),
1-16.

Petran, Laurance A. "An Experimental Study of Pitch
Recognition." Psychological Monographs, XLII, No. 6
(1932), 1-124.

Pike, K.L. Tone Languages: The Nature of Tonal Systems
with a Technique for the Analysis of Their Significant
Pitch Contrasts. Ann Arbor, 1948.

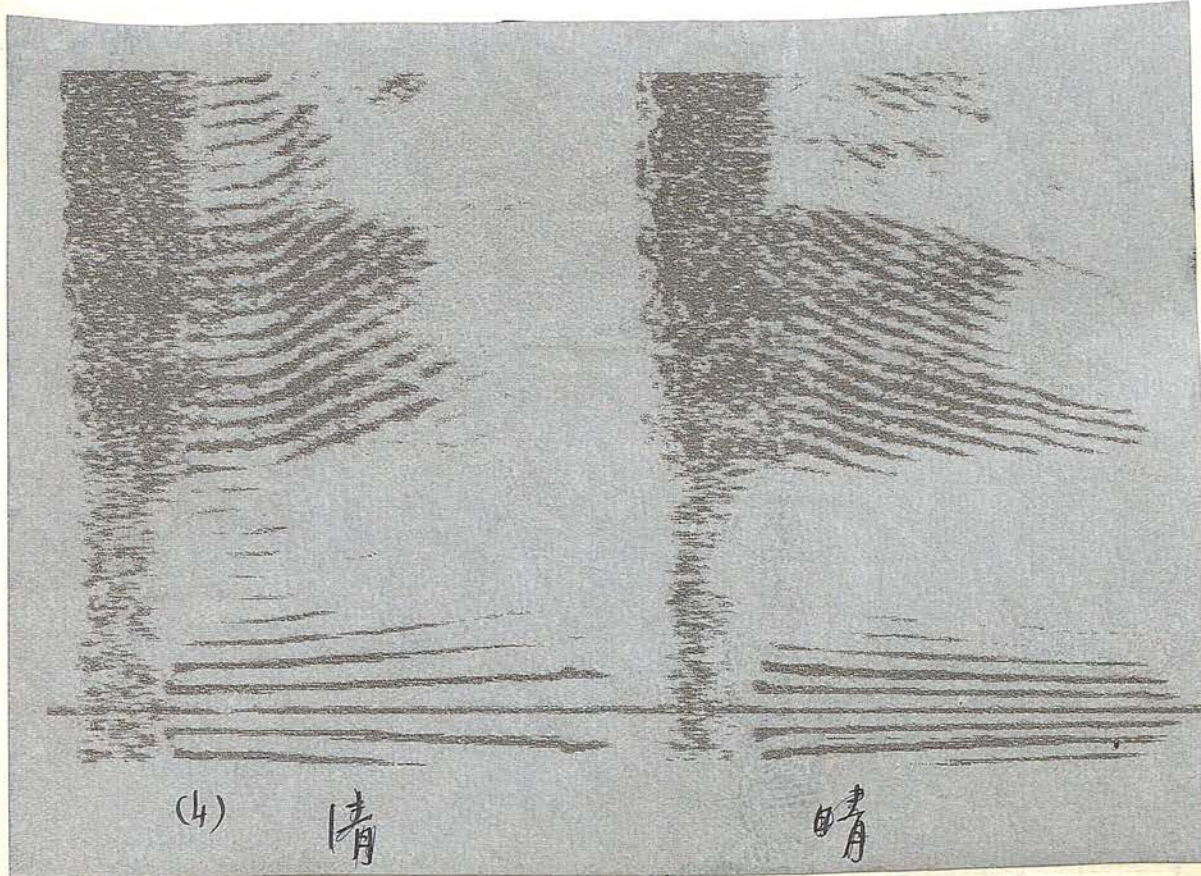
----- The Intonation of American English, Ann Arbor,
1945.

----- Phonetics: A Critical Analysis of Phonetic
Theory and a Technic for the Practical Description of
Sounds. Ann Arbor, 1944.

Potter, Kopp, and Green. Visible Speech. New York, 1947.

Principles of the International Phonetic Association.
Supplement to Le Maître Phonétique (Sept. - Oct. 1912)

- Root, Alfred R. "Pitch-Patterns and Tonal Movement in Speech". University of Iowa Studies in Psychology, XIII (1930), 109-59. Psychological Monographs, XL. No.1.
- Sapier, Edward. "Sound Patterns in Language". Language I (June 1925), 37-51.
- Schubiger, Maria. "The Role of Intonation in Spoken English". Cambridge 1935.
- Scott, N.C. "The Monosyllable in Szechuanese", Bulletin of the School of Oriental and African Studies. University of London, XII, pt. i, 1947, 197-213
- Stetson, Raymond Herbert. "Motor Phonetics: A Study of Speech Movements in Action," Archives Néerlandaises de Phonétique Expérimentale, III (1928). 1-216.
- Tao, Yu Min. "Phonetics of the Foo Chow Dialect", Bulletin of the National Research Institute of History and Philology of the Academia Sinica. I pt. 4 (1930) 445-70 (In Chinese).
- Taylor, L.F. "On the Tones of Certain Languages of Burma" Bulletin of the School of Oriental Studies, London Institution I, pt. 4 (1917-20) 91-106.
- Voelker, Charles H. "Loudness Intonation in English" Le Maître Phonétique, 3rd Series, LIII (April - June 1938) 21-2.
- Wells, Rubon S. "The Pitch Phonemes of English" Language XXI (Jan. - March), 1945, 27-39.
- "Review of K.L.Pike's Intonation of American English", Language, 1947. 255
- Zwirner, Eberhard. "A Contribution to the Theory of Pitch Curves". Archives Néerlandaises de Phonétique Expérimentale, VII (1932) 38-51.



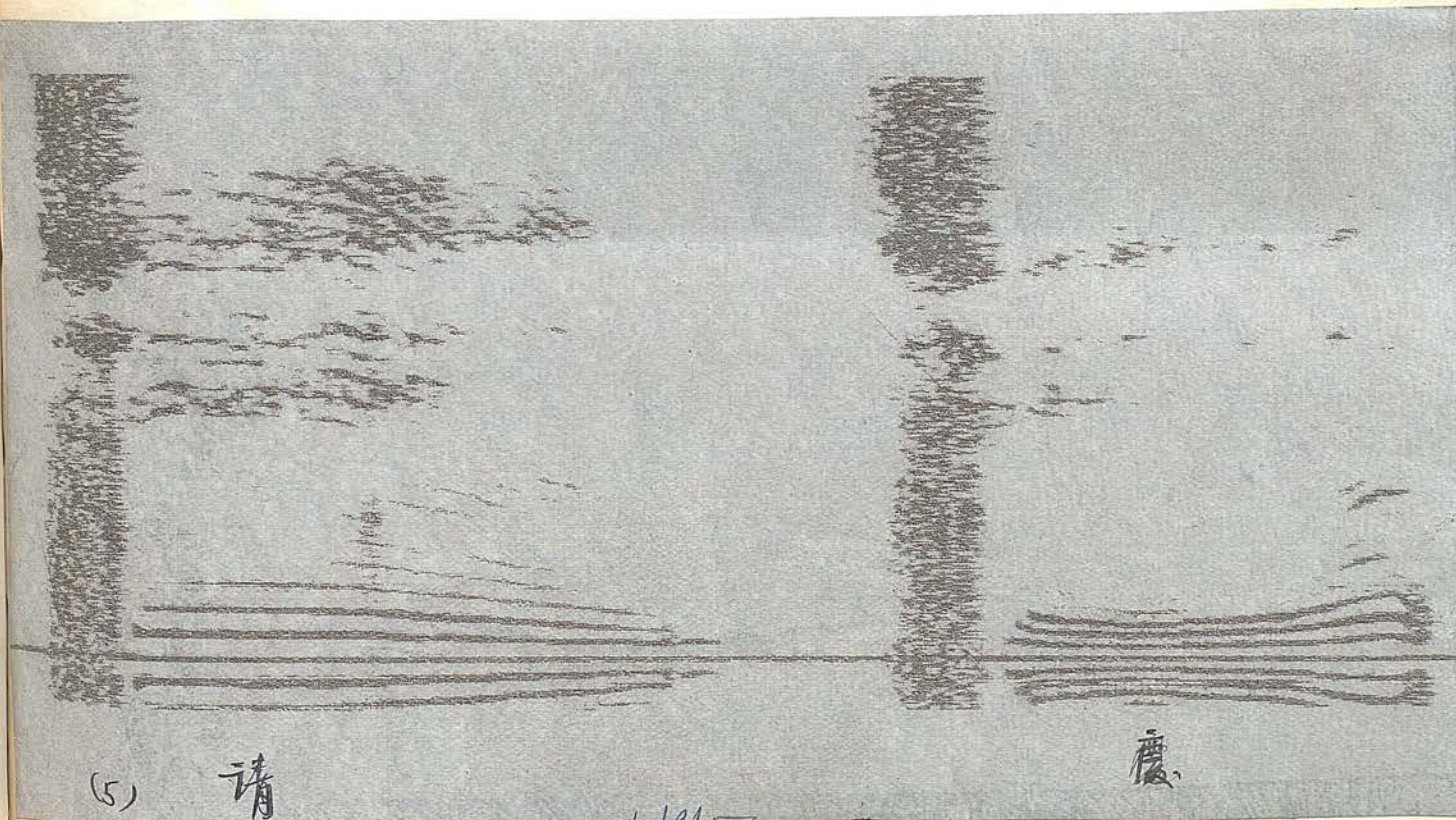
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Fig. 1. $[\text{'tfin}] [\text{'tfin}] [\text{'tfin}] [\text{'tfin}]$ spoken by myself

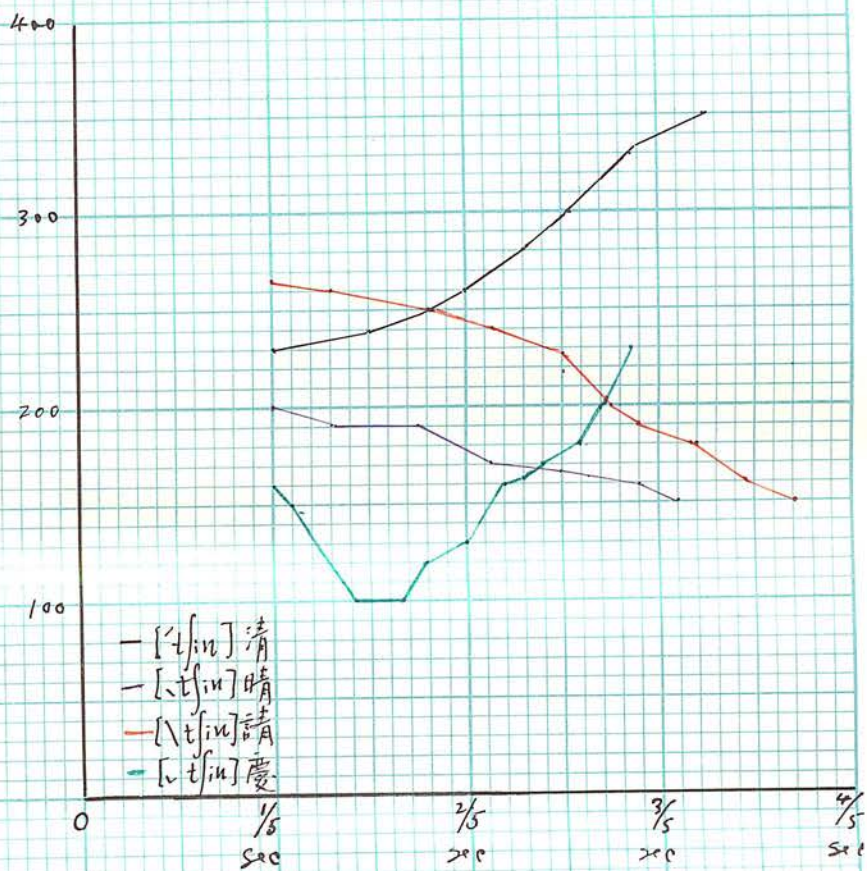
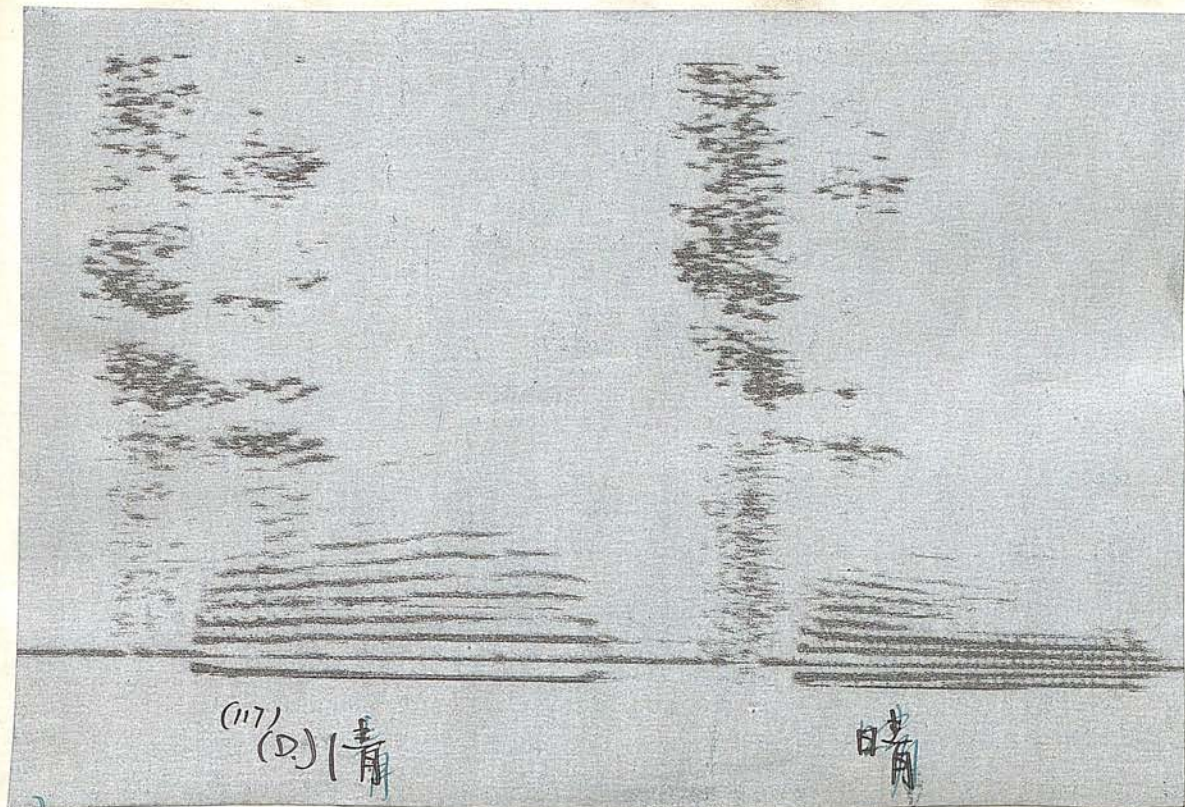


Fig. 9.1

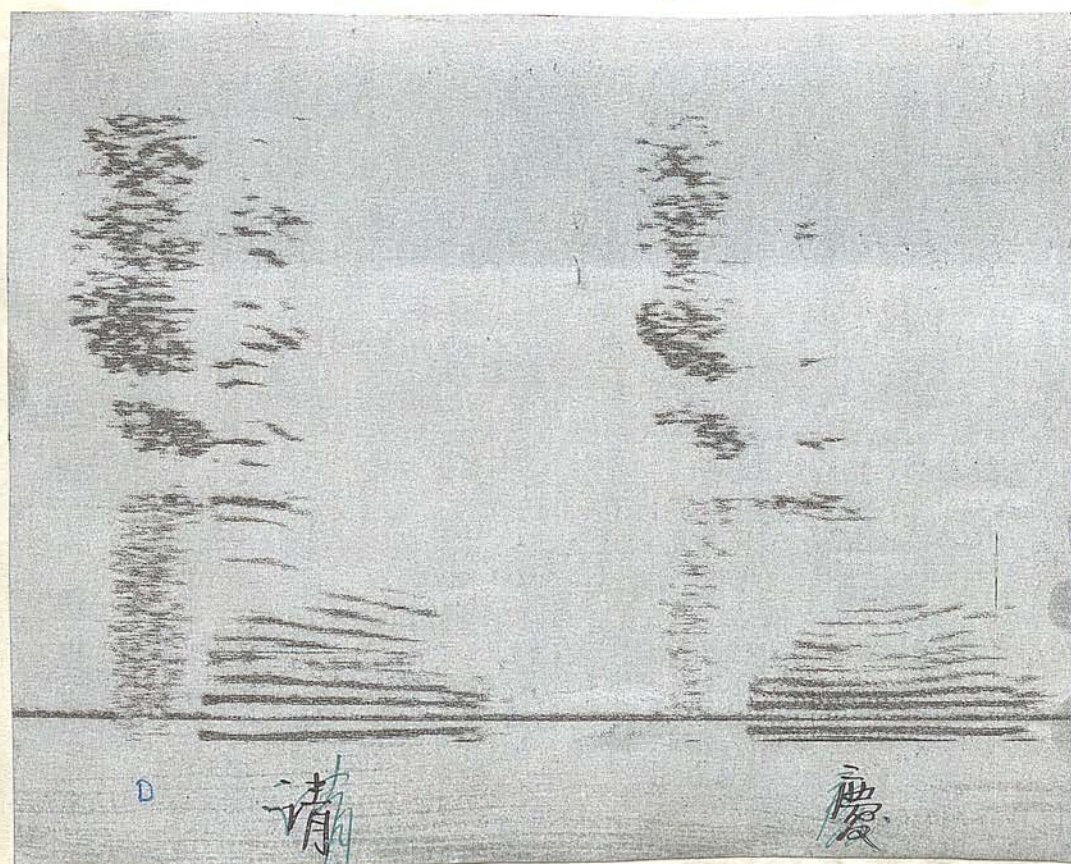


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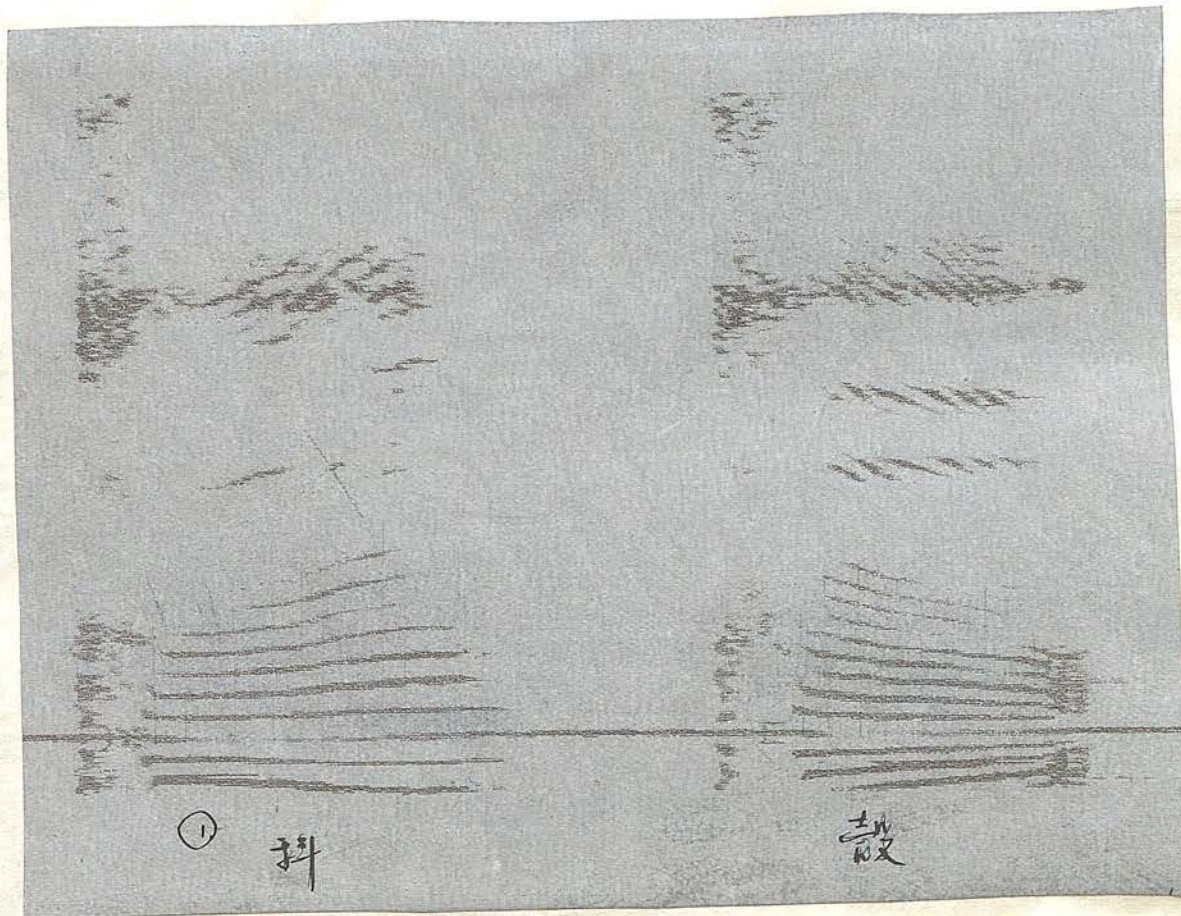
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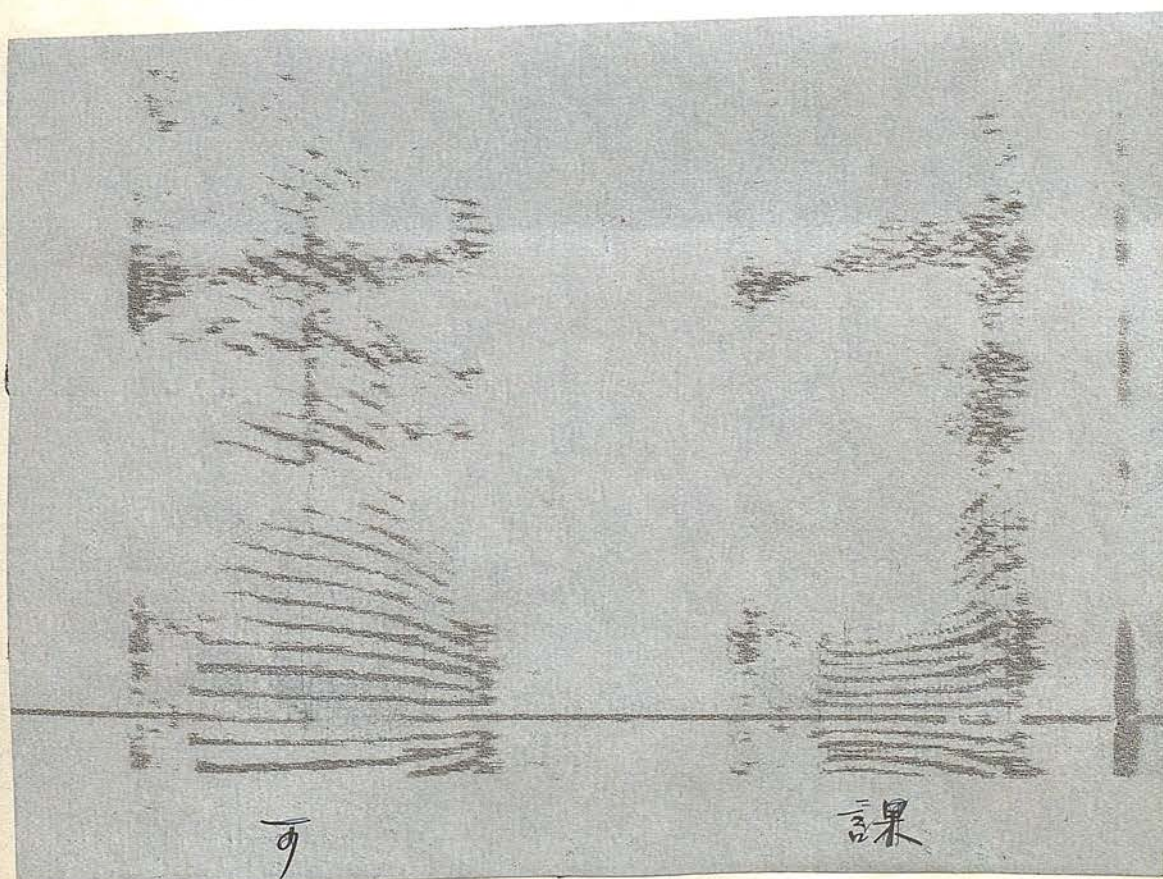
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Fig. 2 [tʃin] [tʃin] [tʃin] [tʃin] spoken by the informant



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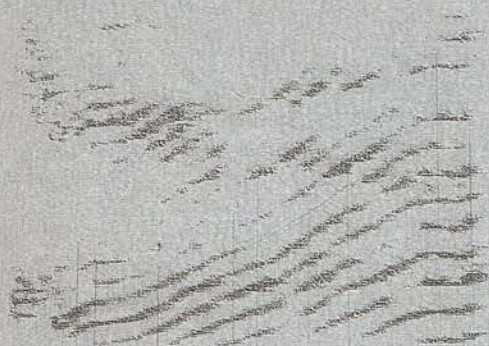
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Fig. 3



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Fig. 4

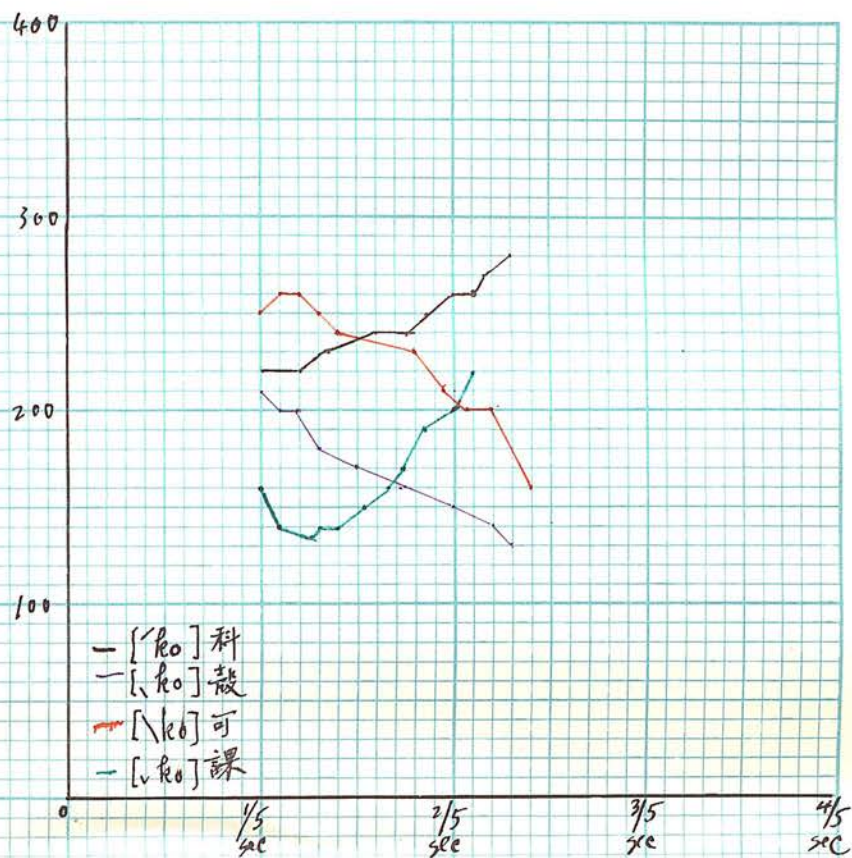


Fig. 8.2

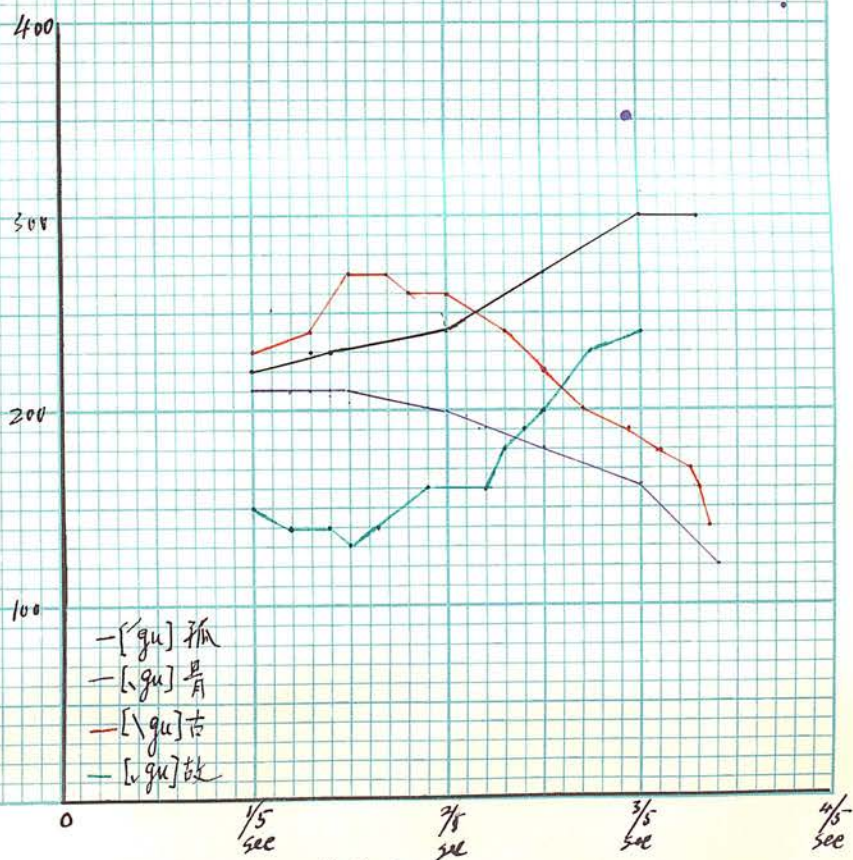
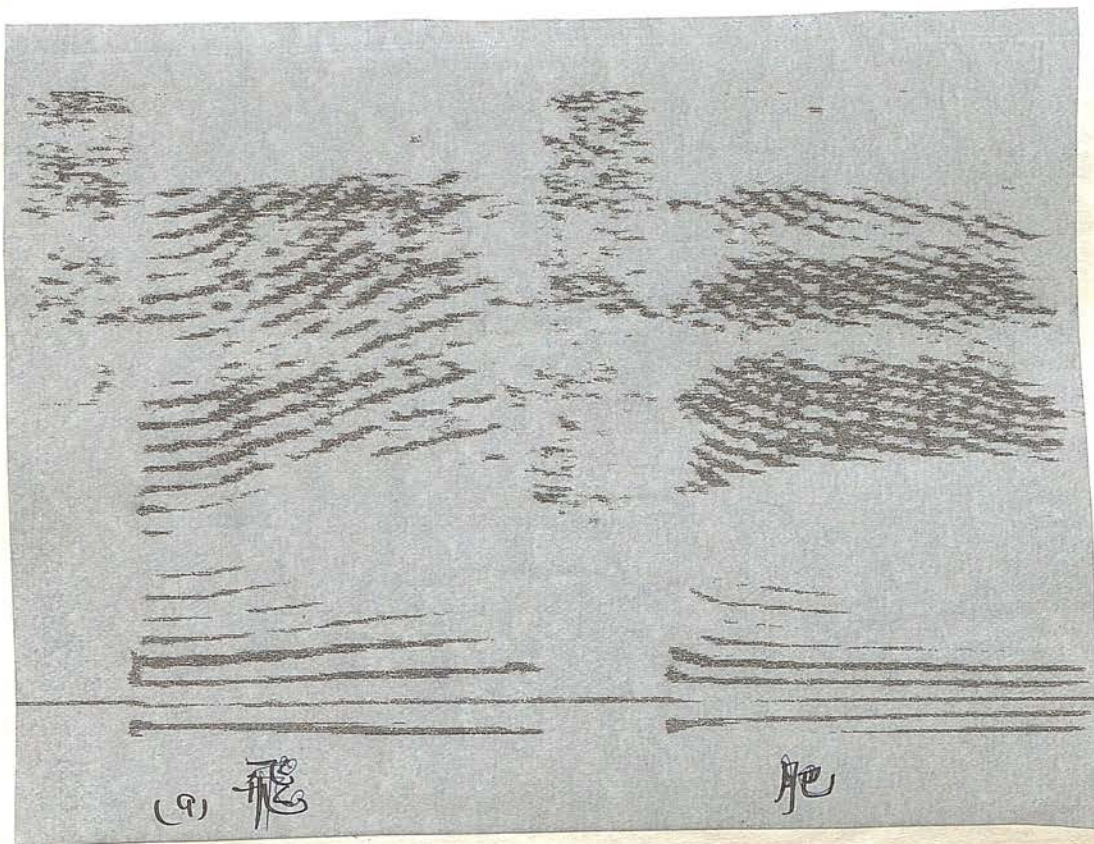


Fig. 8.3

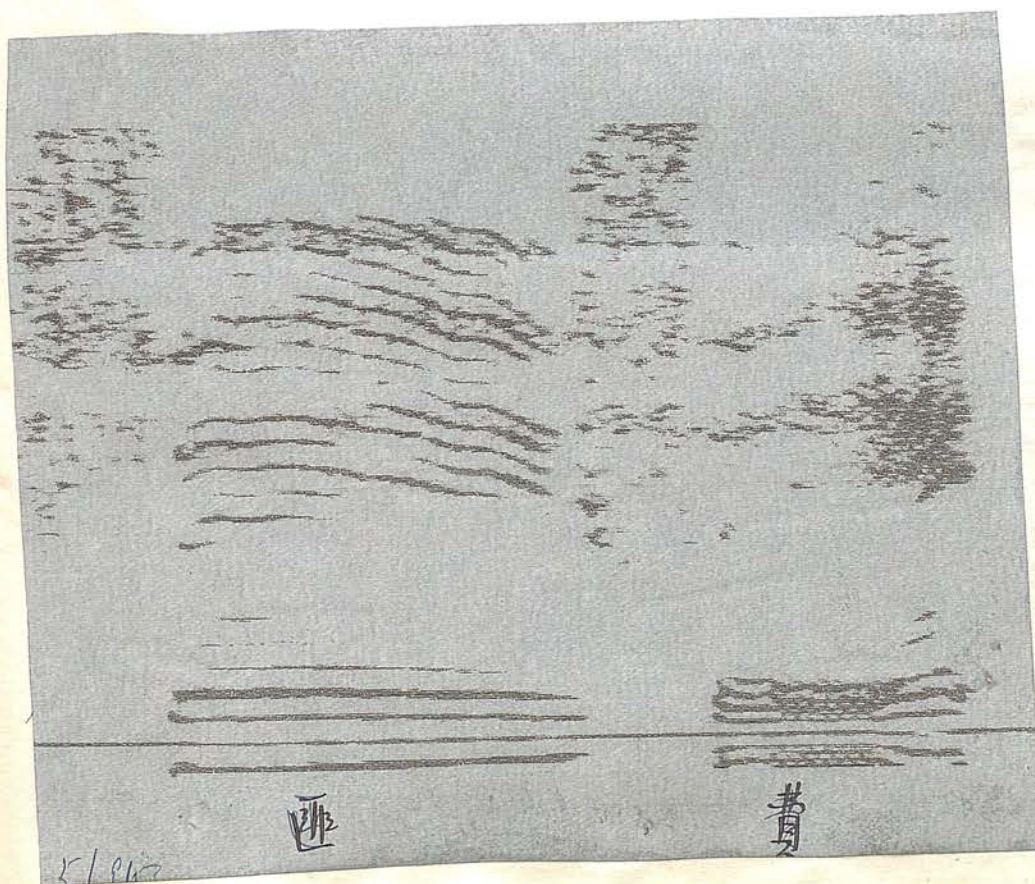


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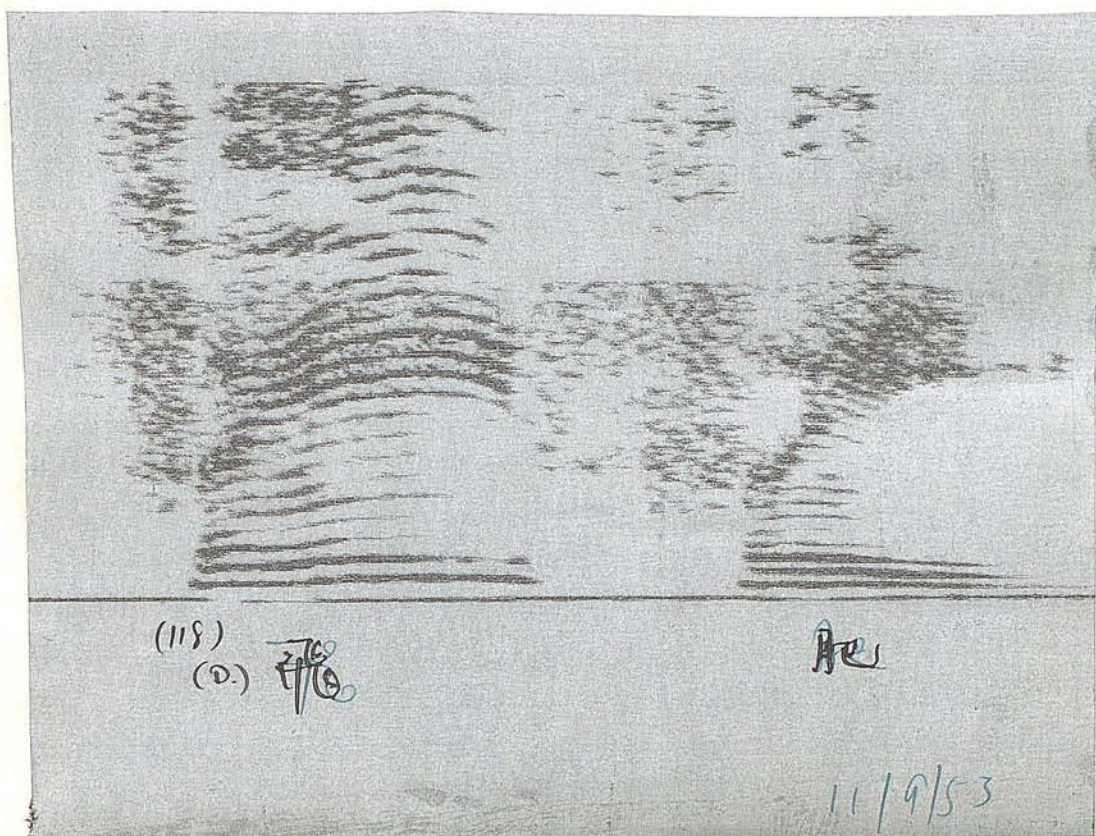
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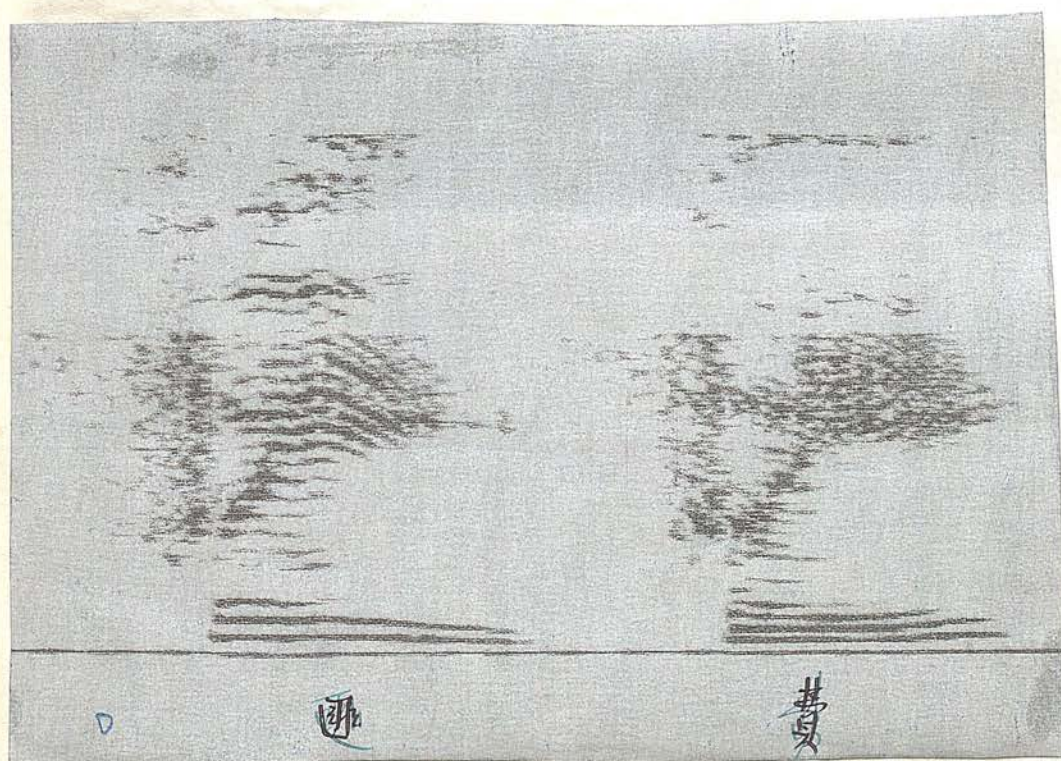
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Fig.5a (spoken by myself)



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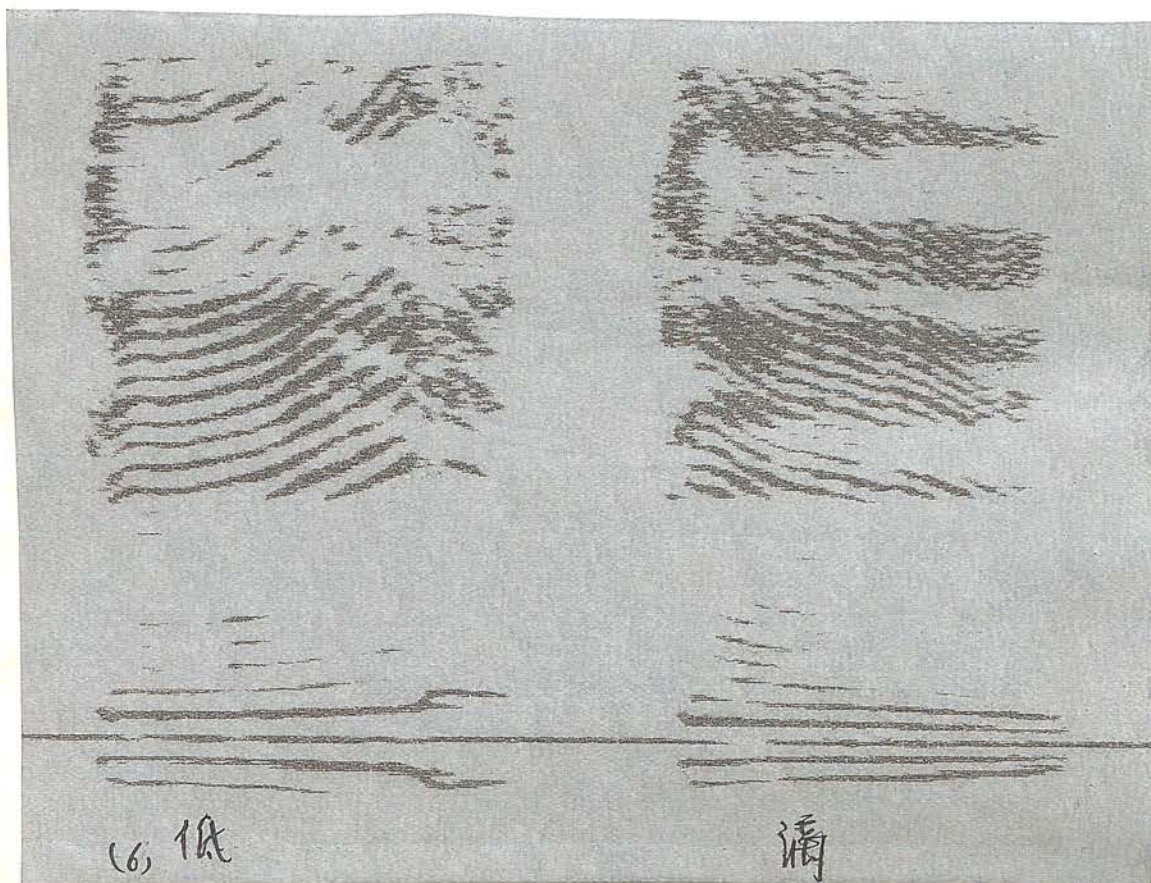
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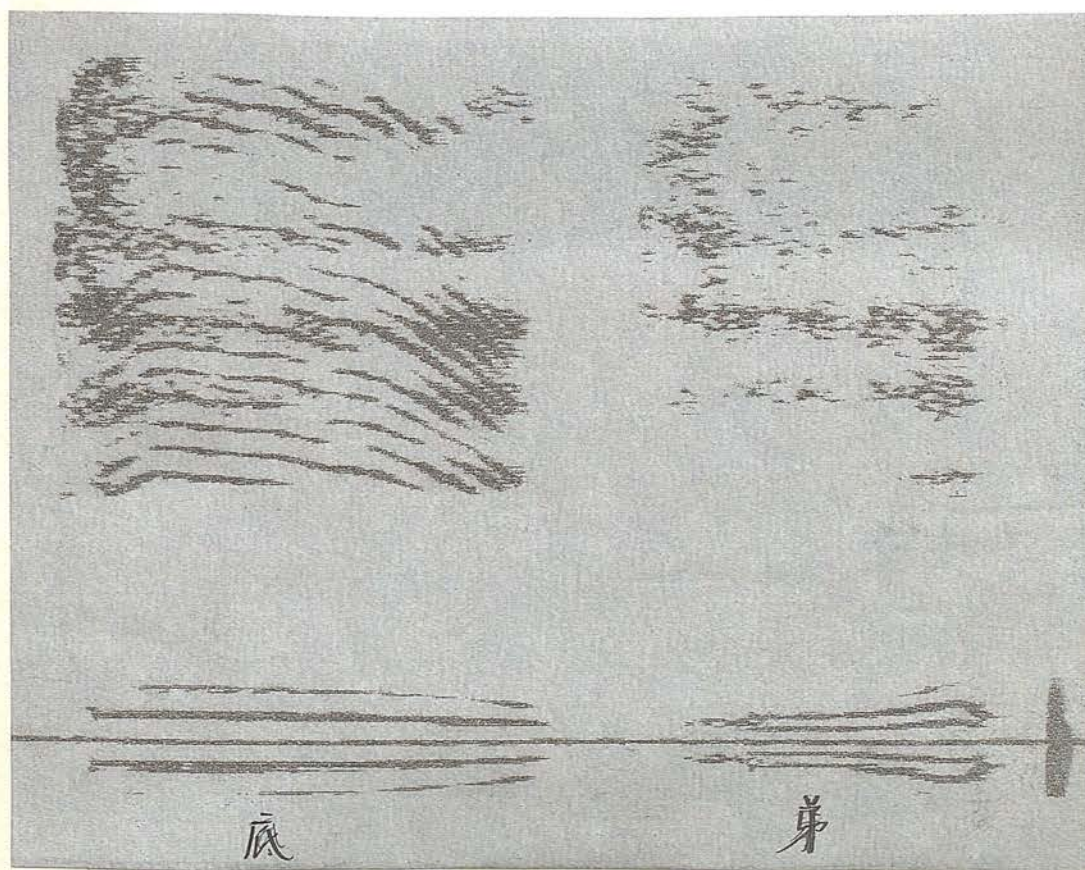
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Fig.5b (spoken by the informant)



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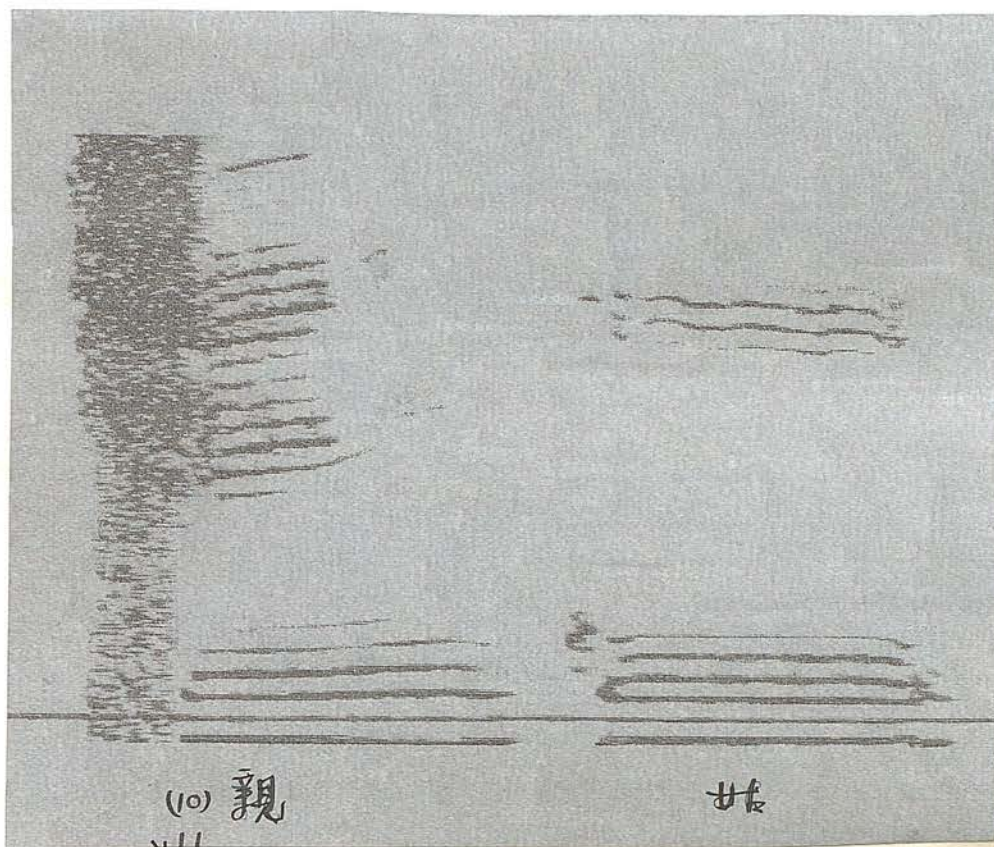
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Fig. 6



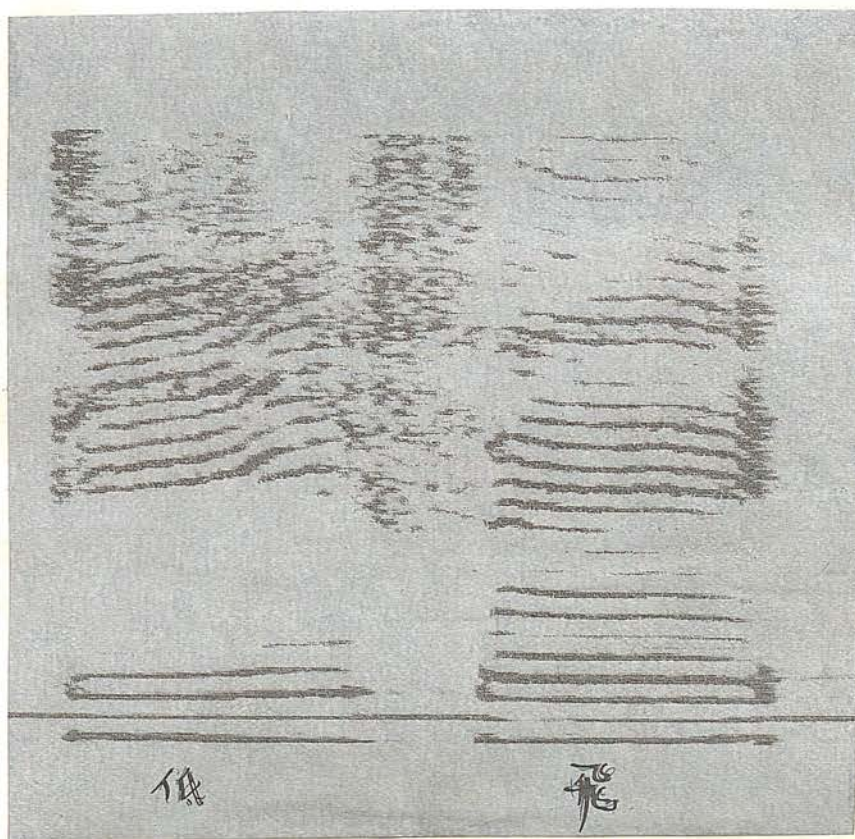
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Fig. 7



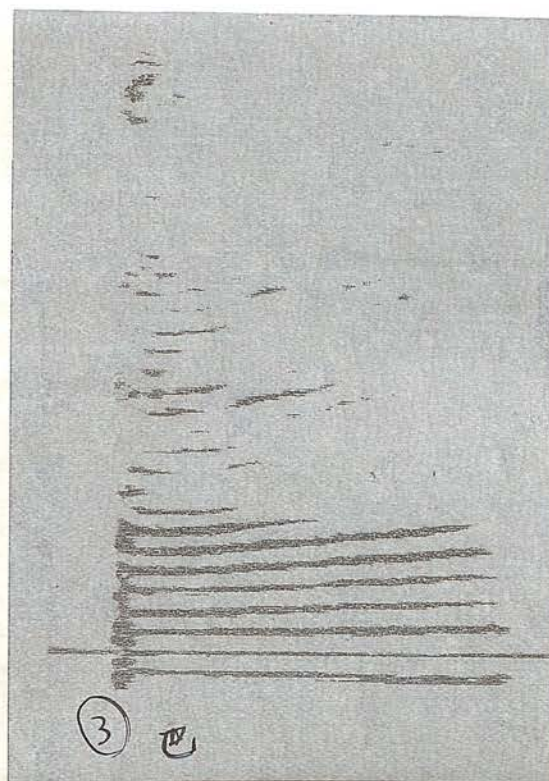
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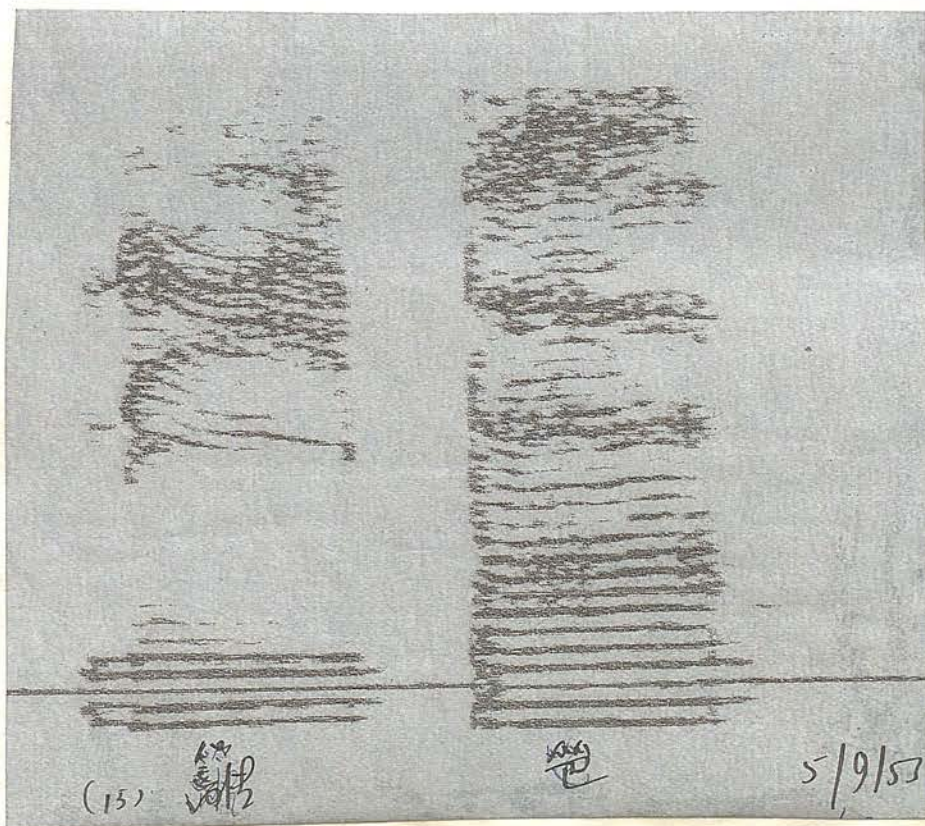
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Fig. 8



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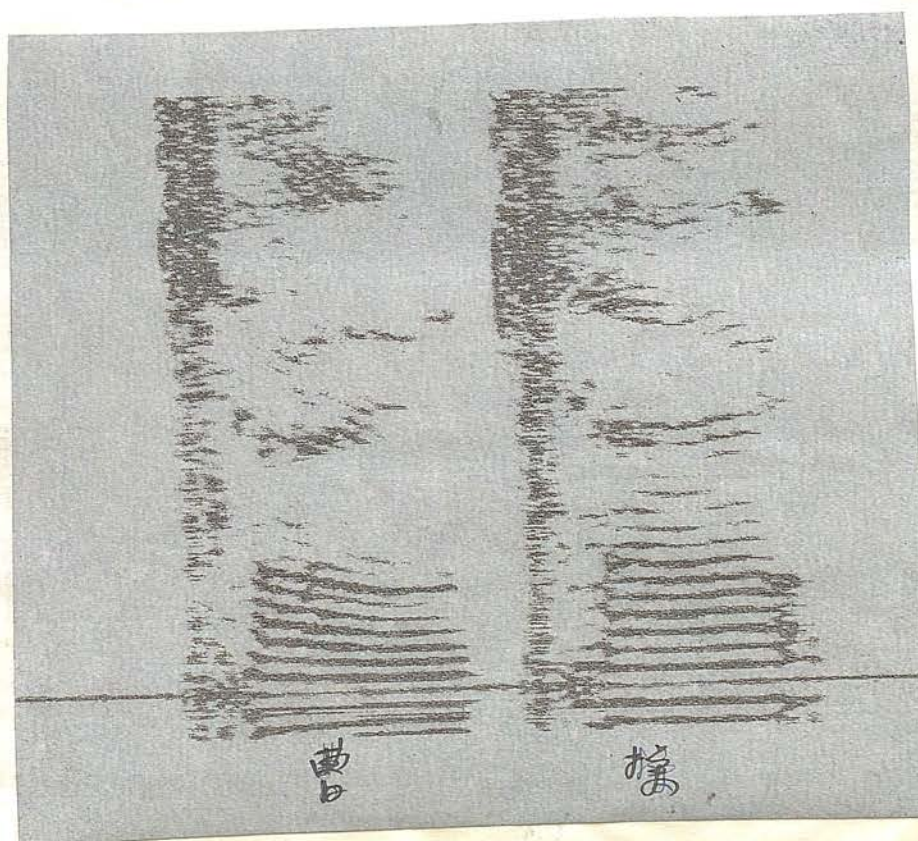
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Fig. 9

[ba] spoken in isolation & in the phrase ['li -ba]



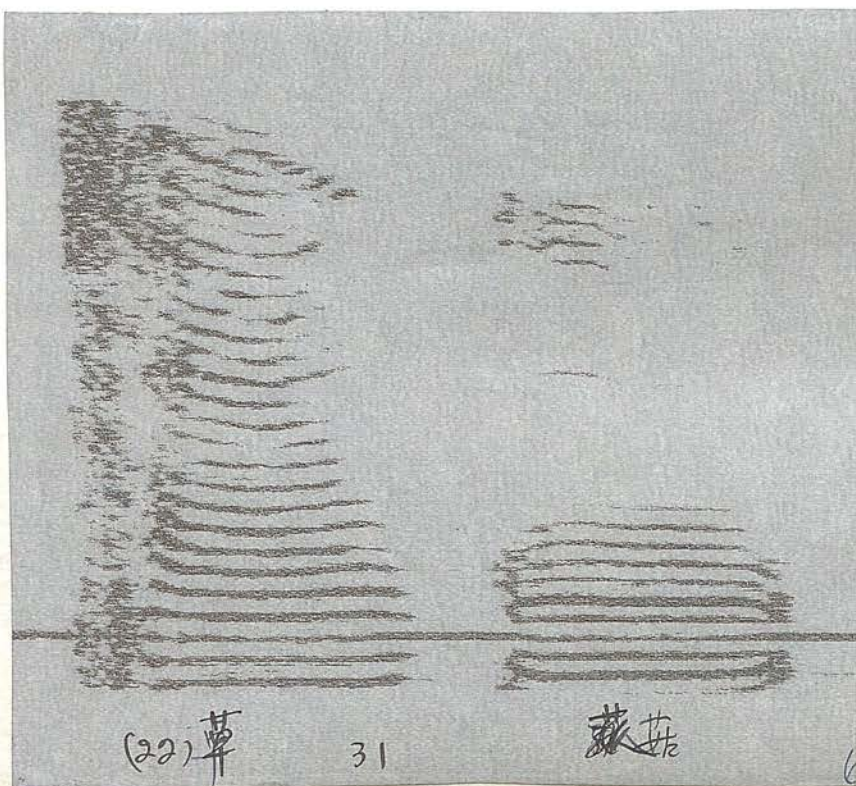
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Fig. 10
[tsau] spoken in isolation & in the phrase [tsau-tsau]



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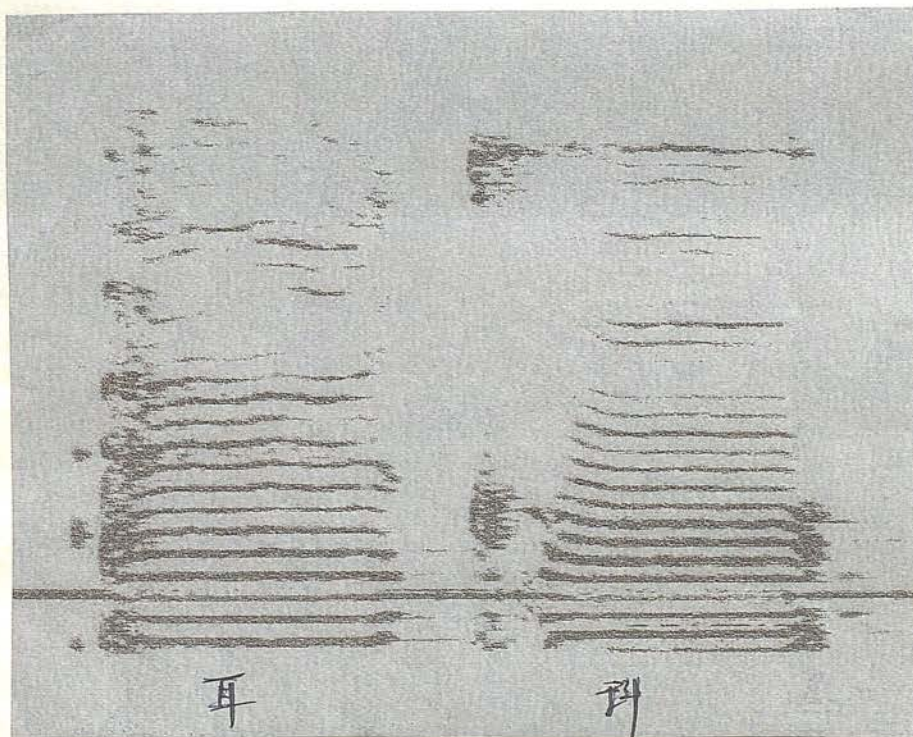
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Fig. 11



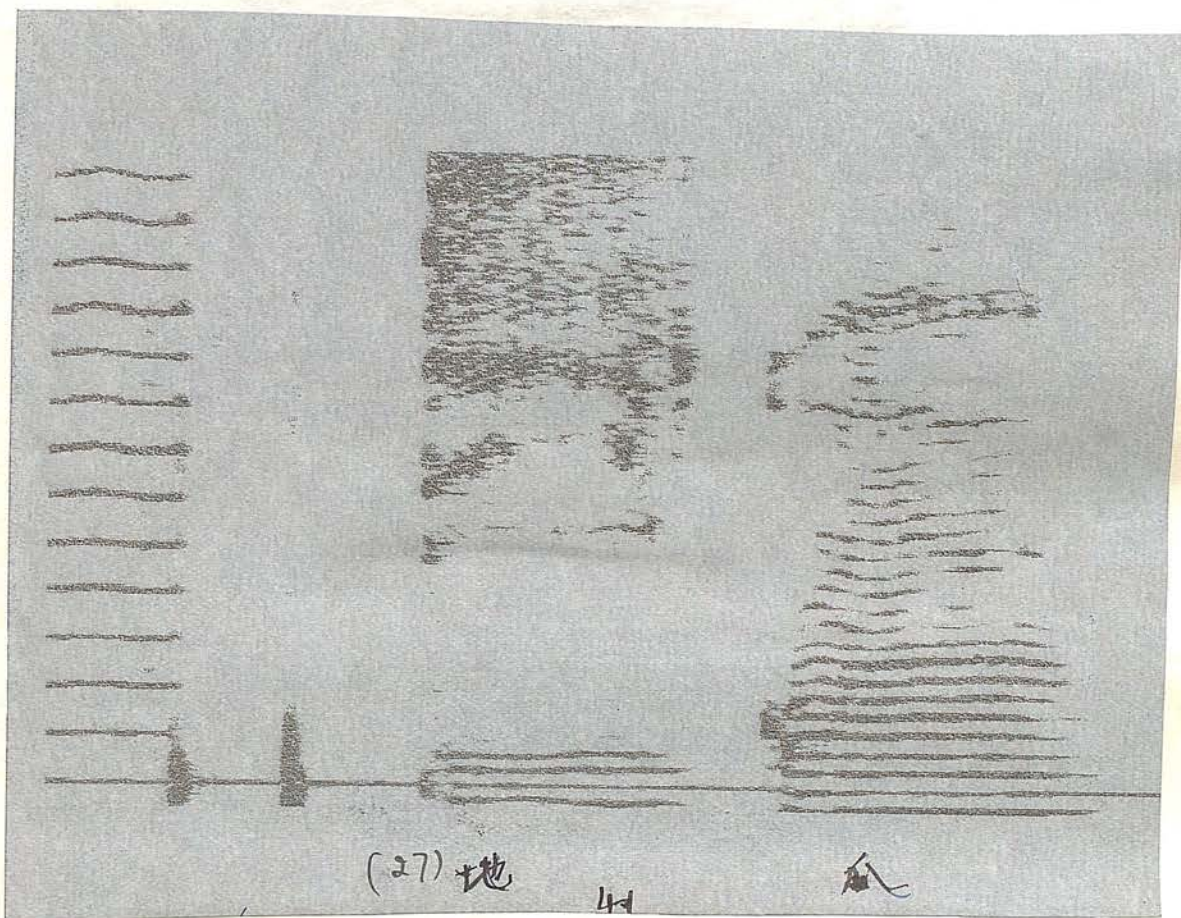
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Fig. 12



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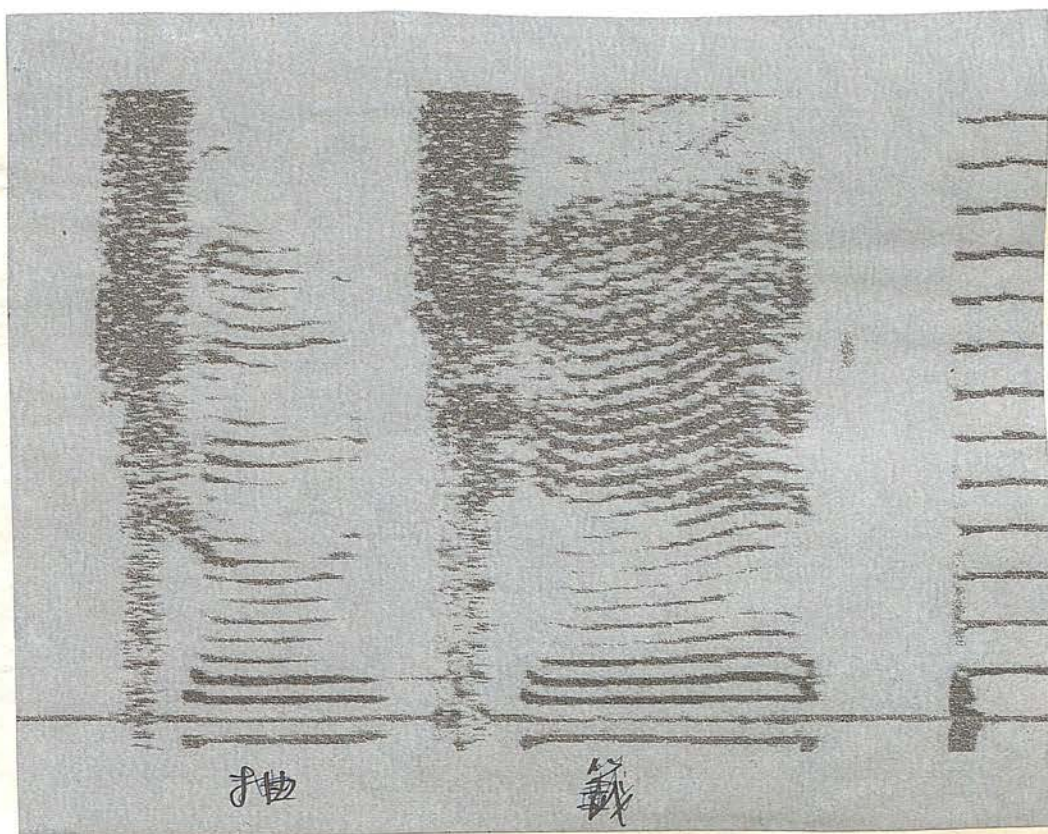
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Fig. 13



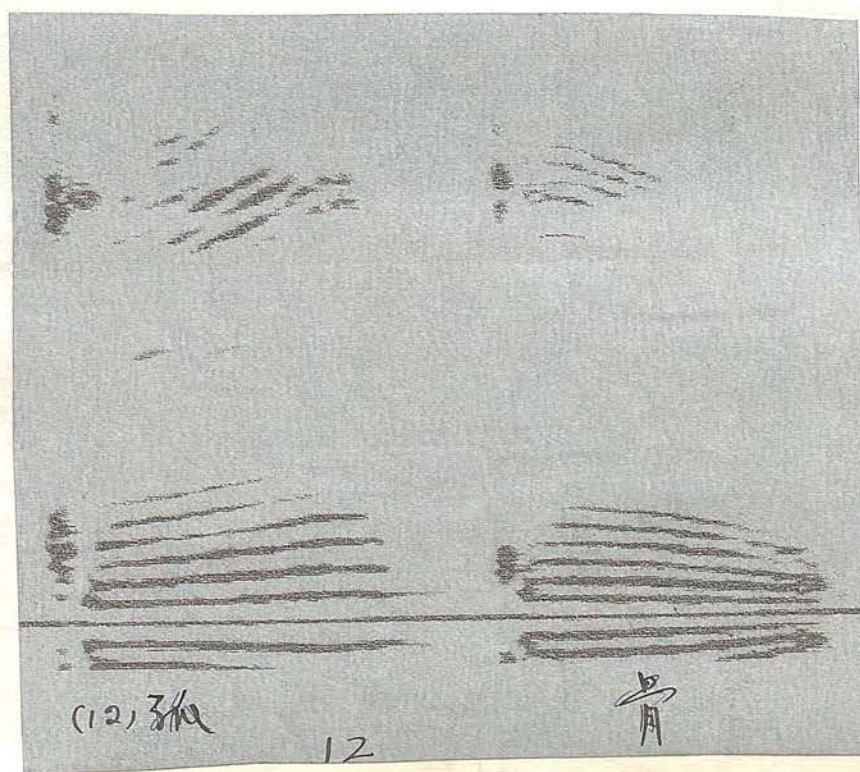
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Fig. 14



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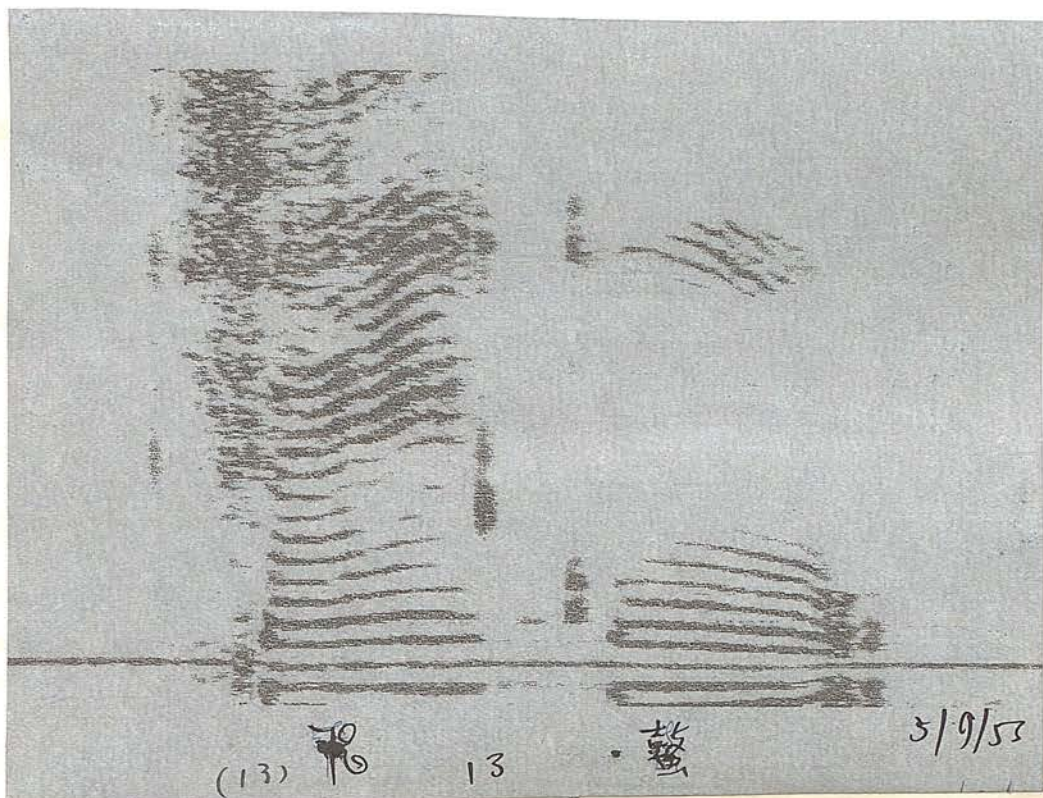
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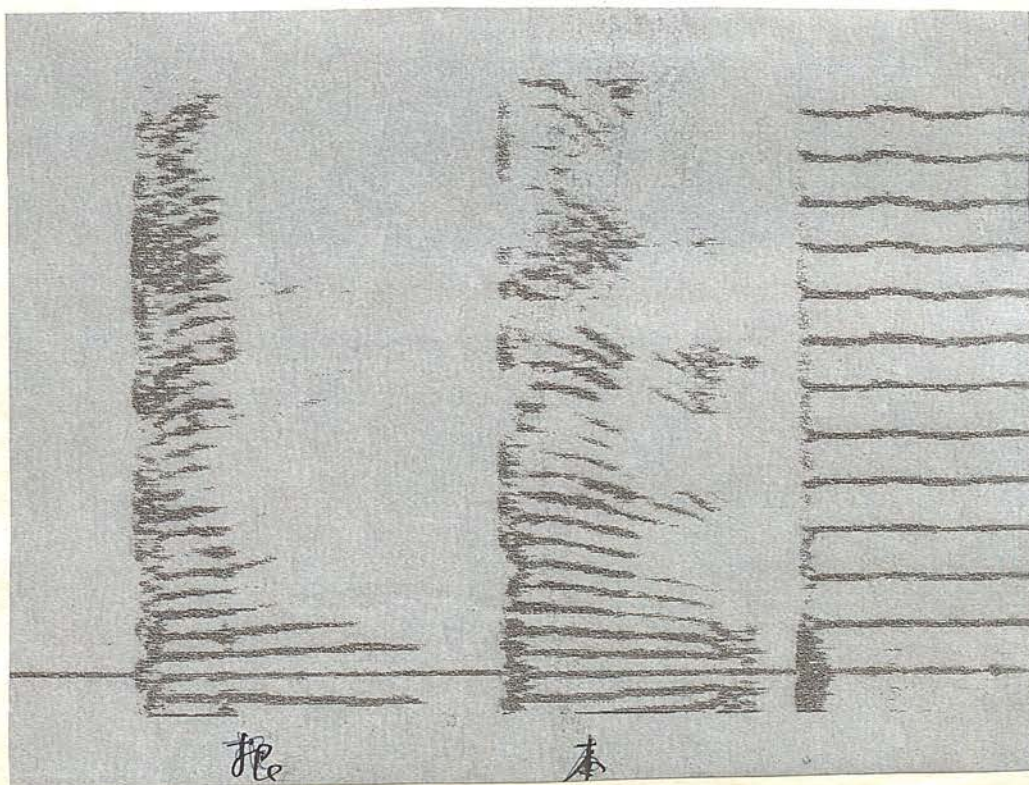
Fig. 15



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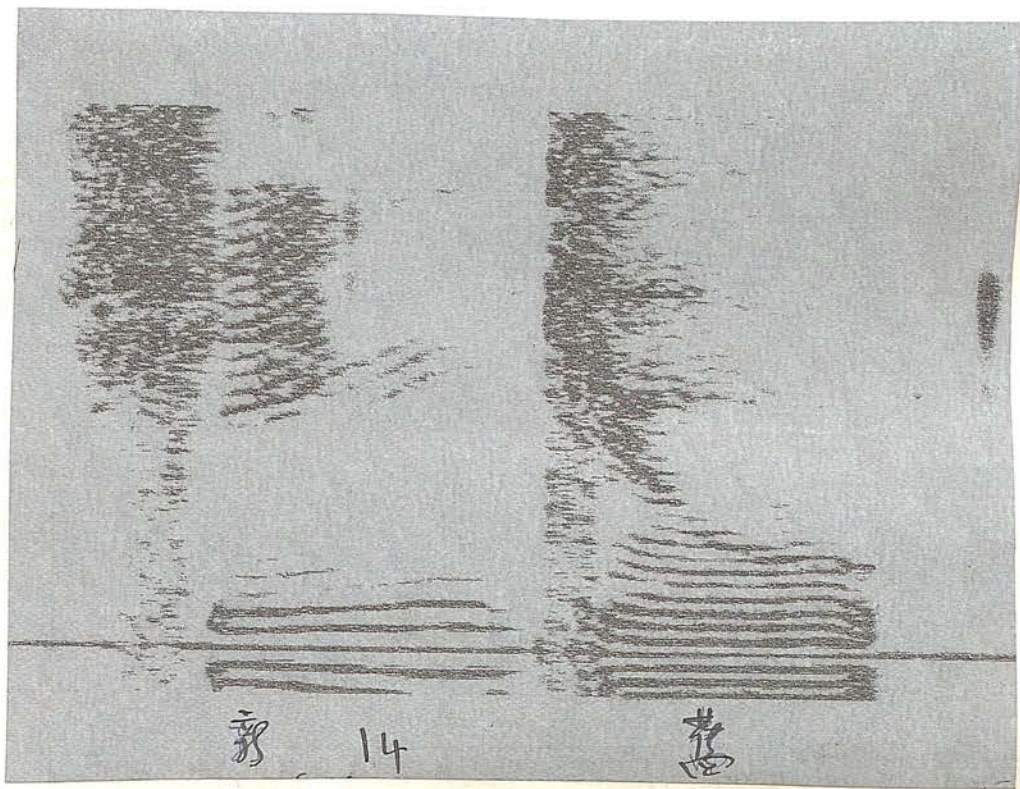
Fig. 16



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Fig. 17



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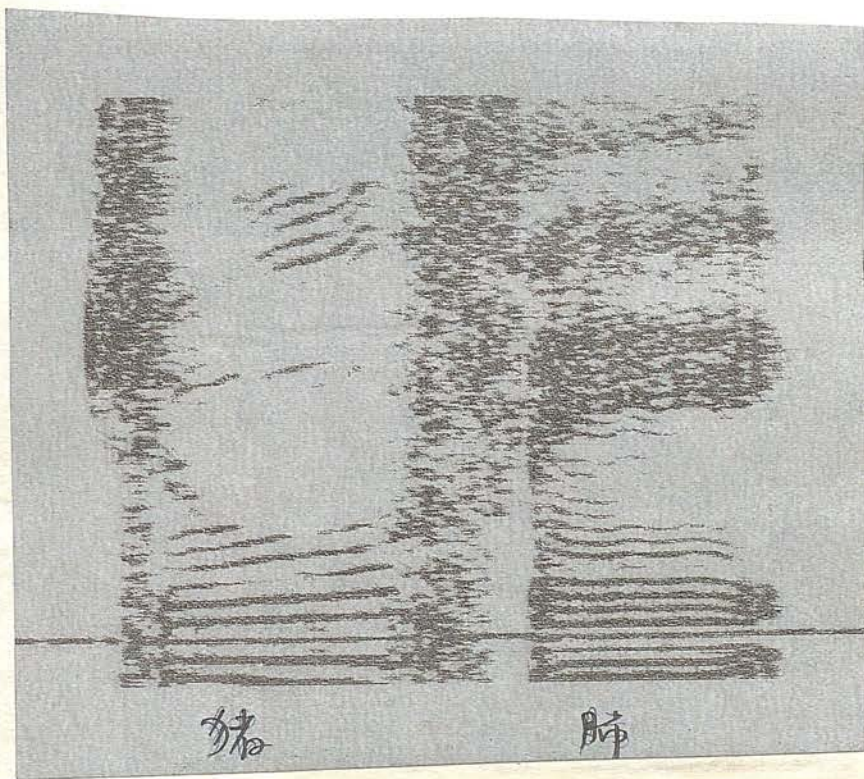
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Fig. 18

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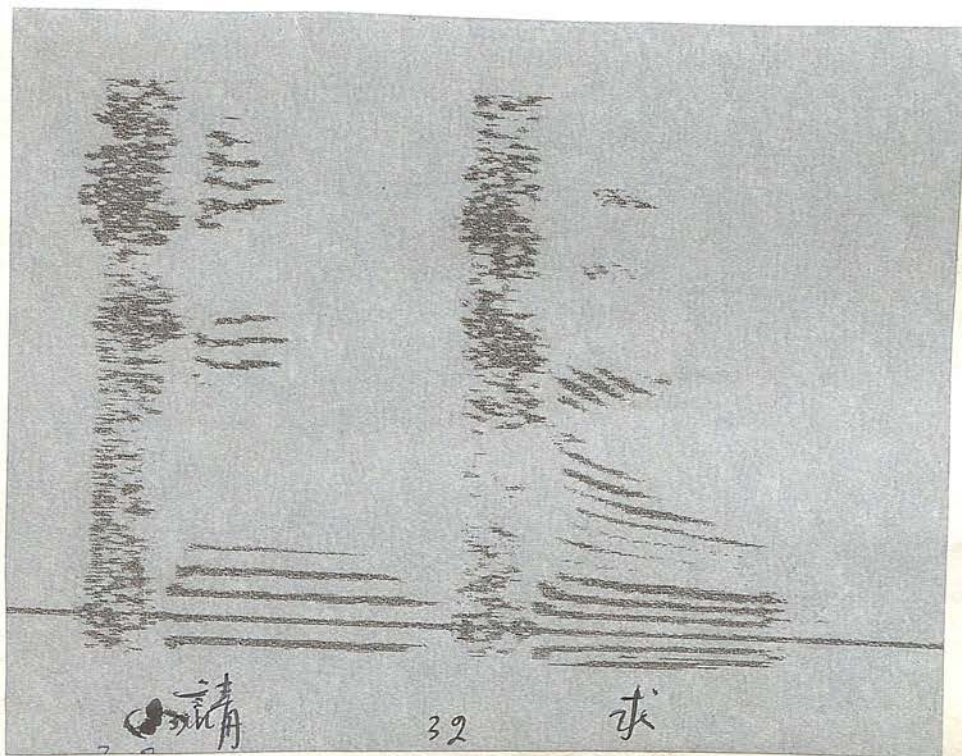
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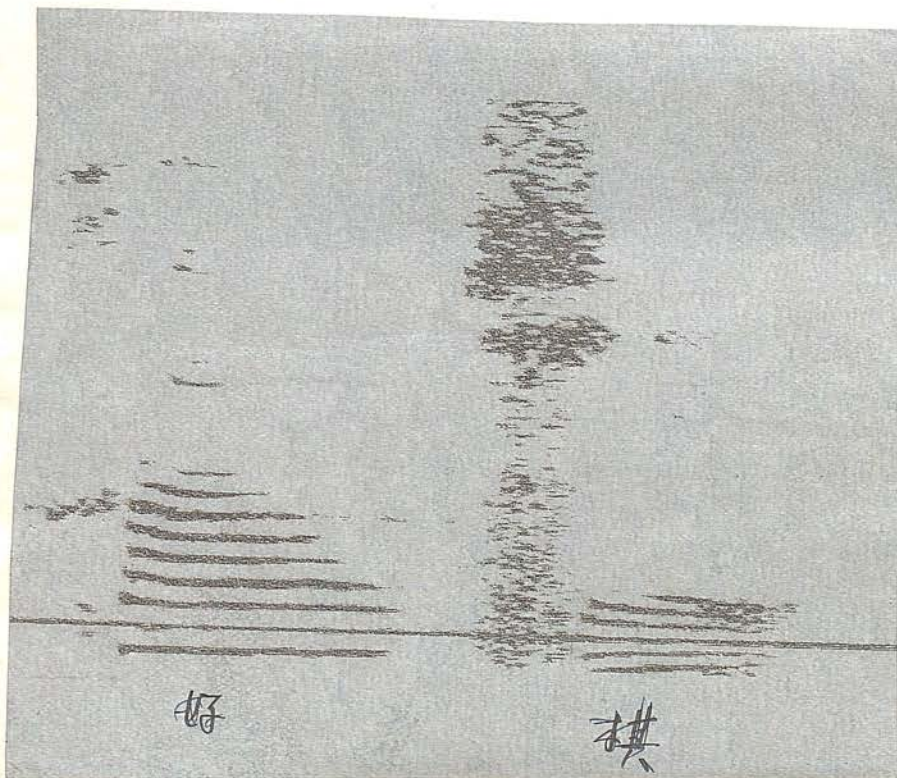
Fig. 19



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Fig. 20

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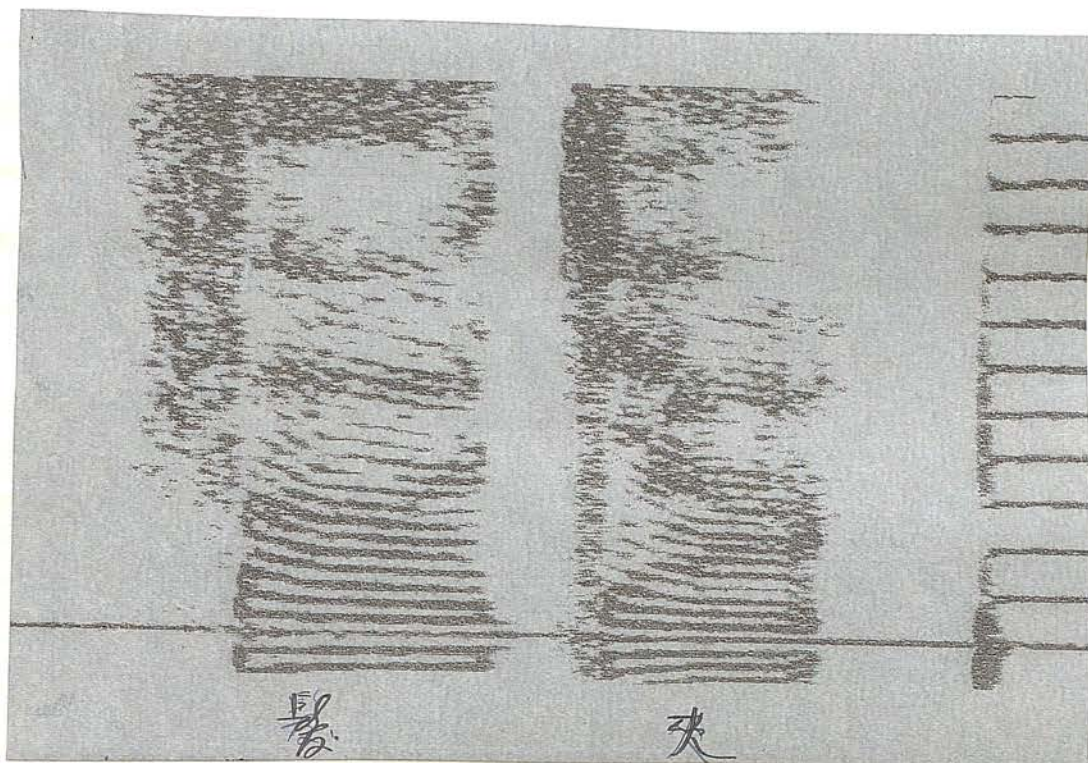
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Fig. 21

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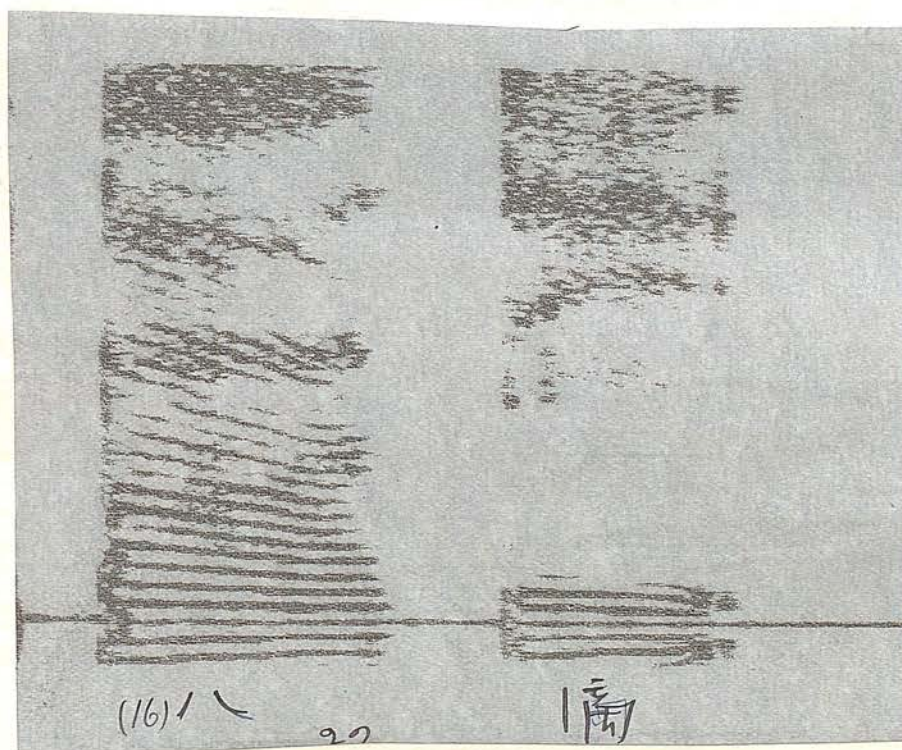




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Fig. 22



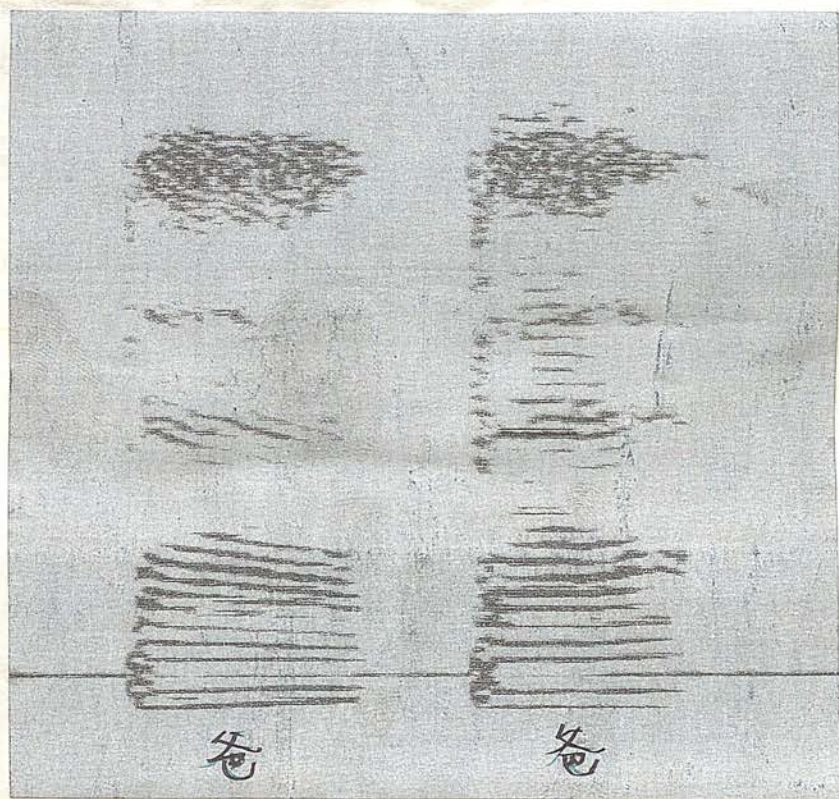
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Fig. 23



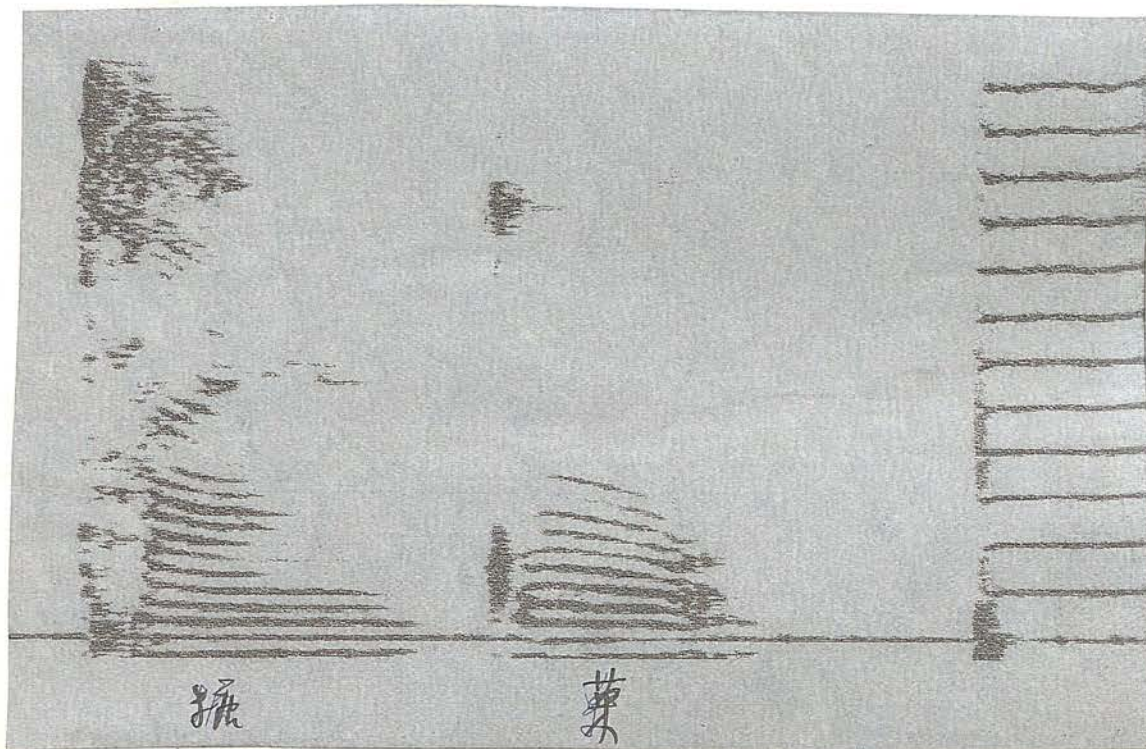
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Fig. 24



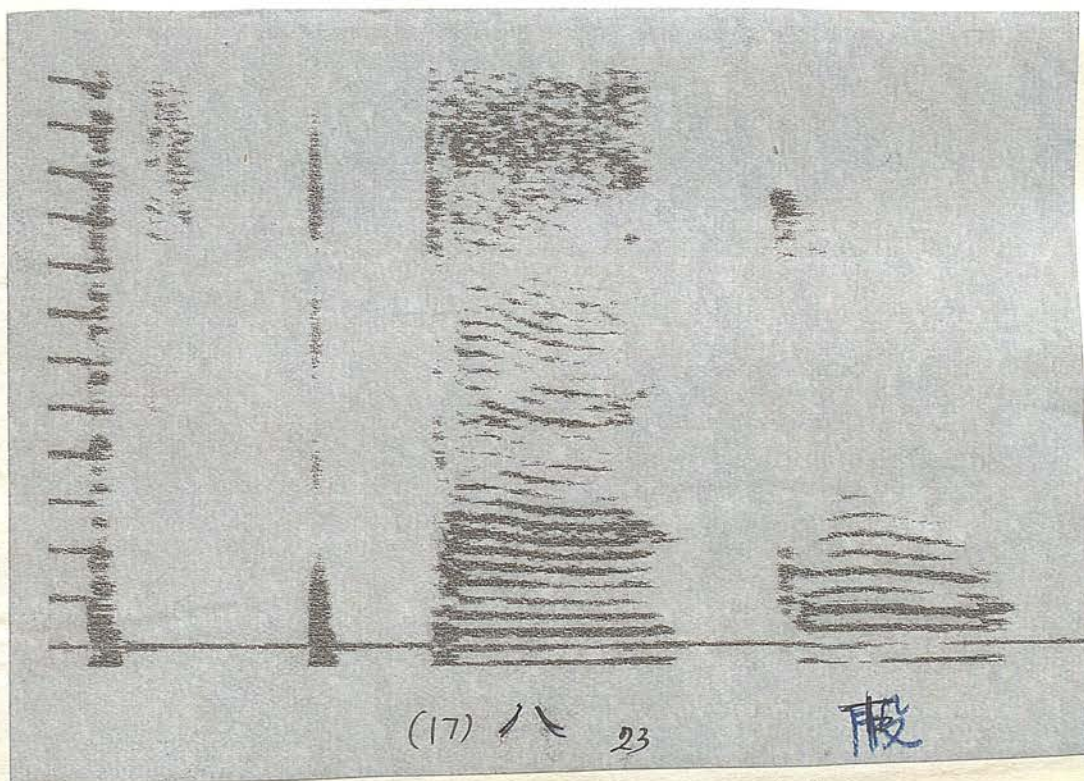
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Fig.25



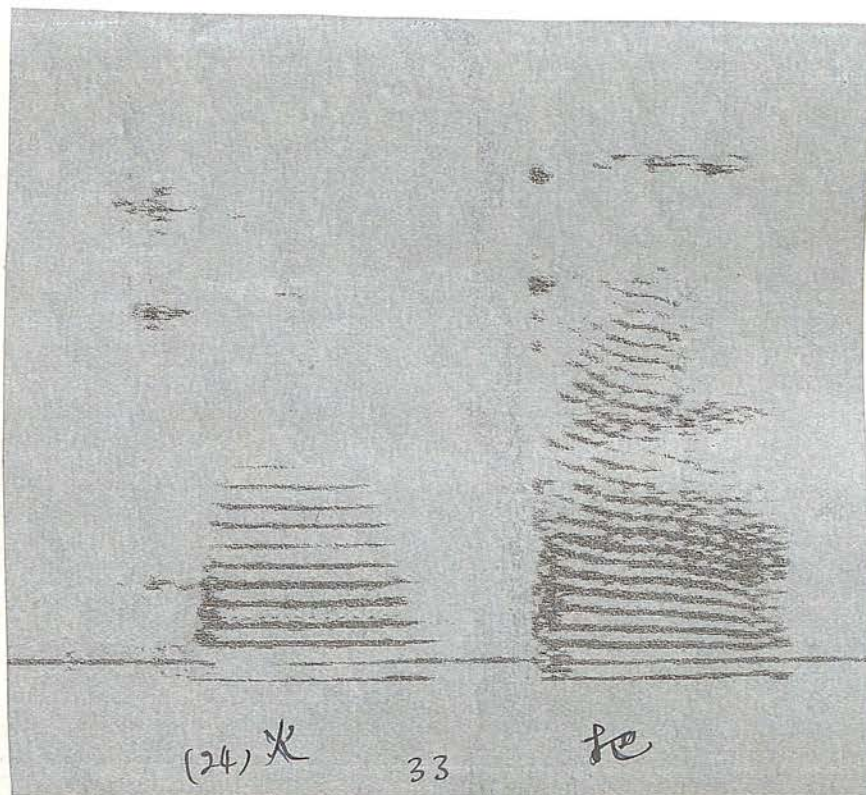
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Fig.26



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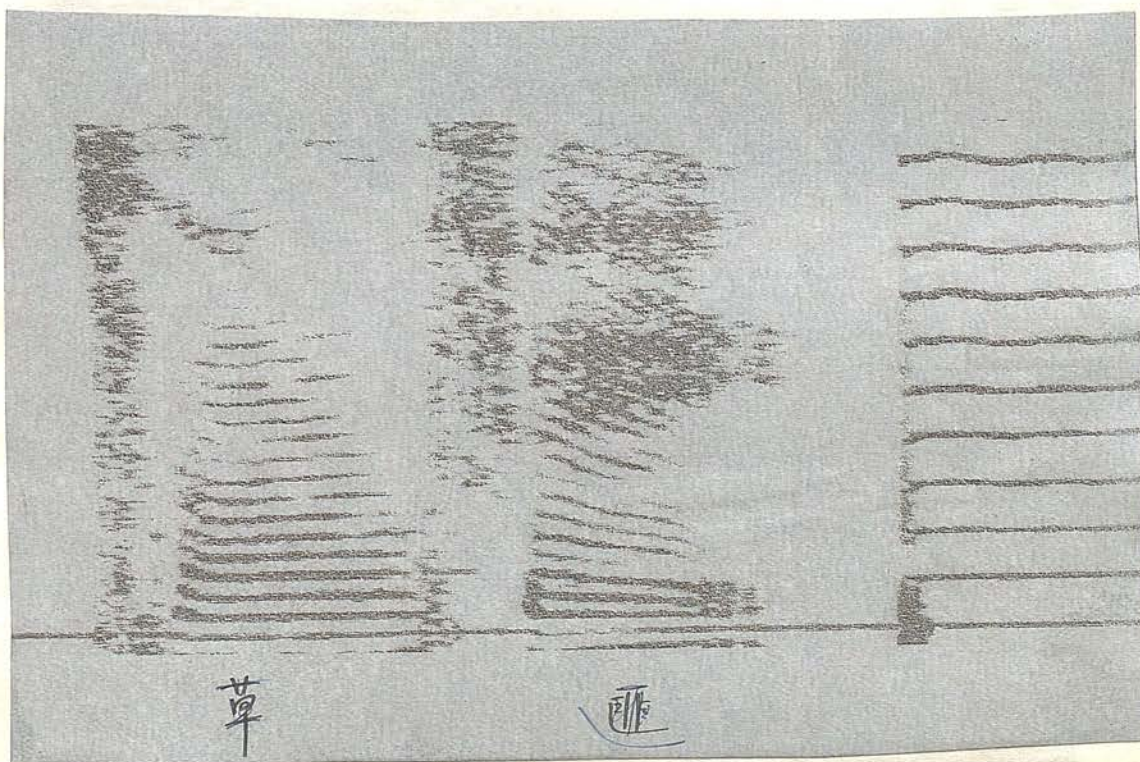
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Fig. 27



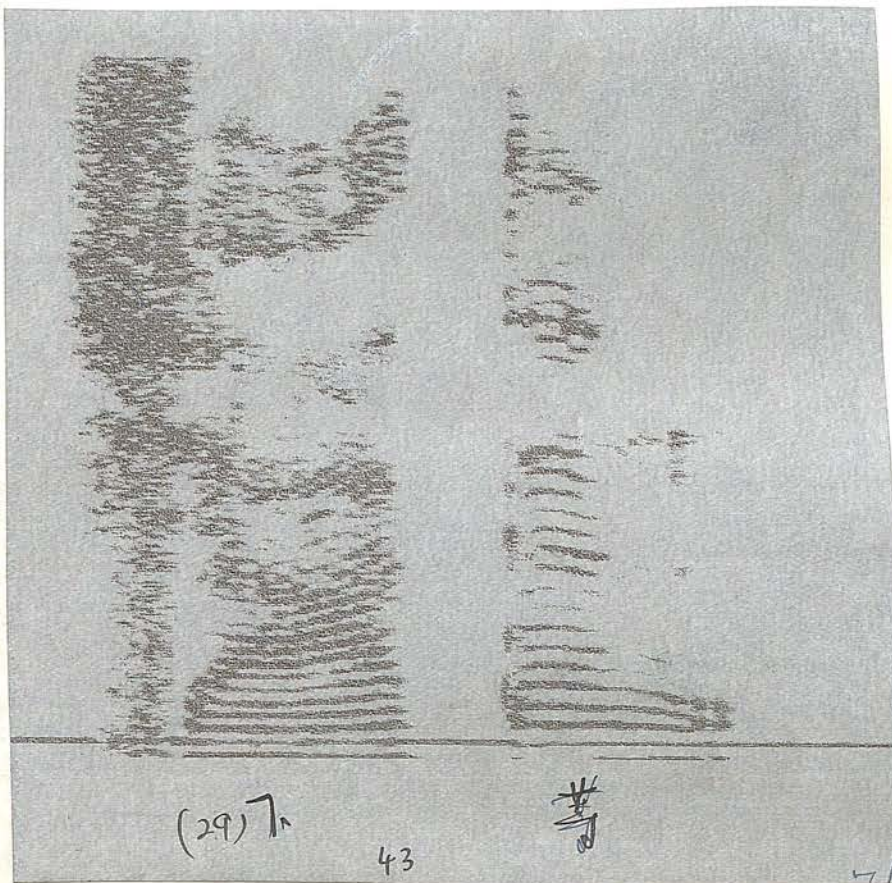
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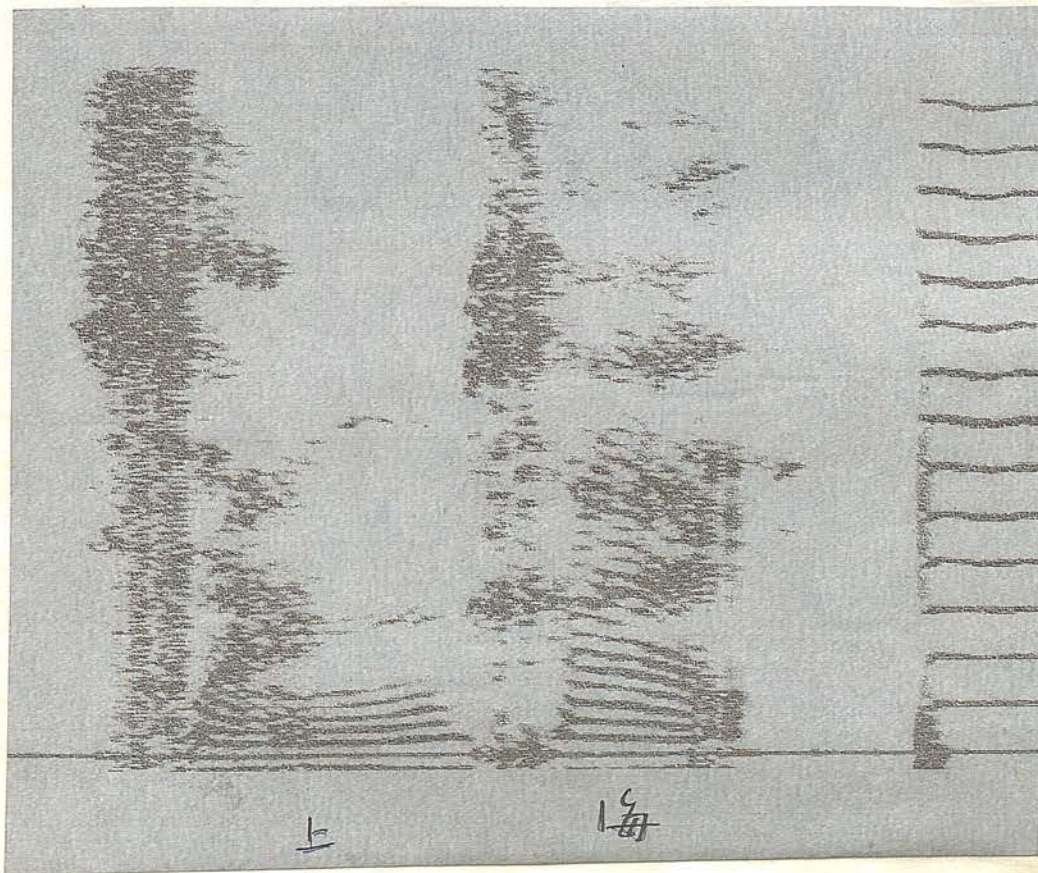
Fig. 28



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Fig. 29

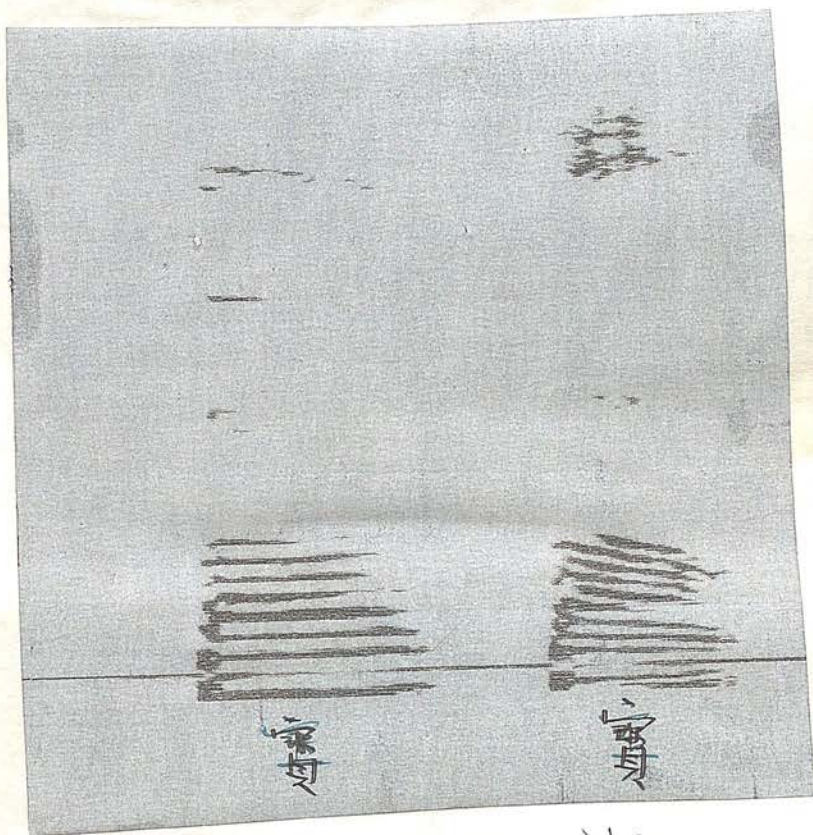
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Fig. 30

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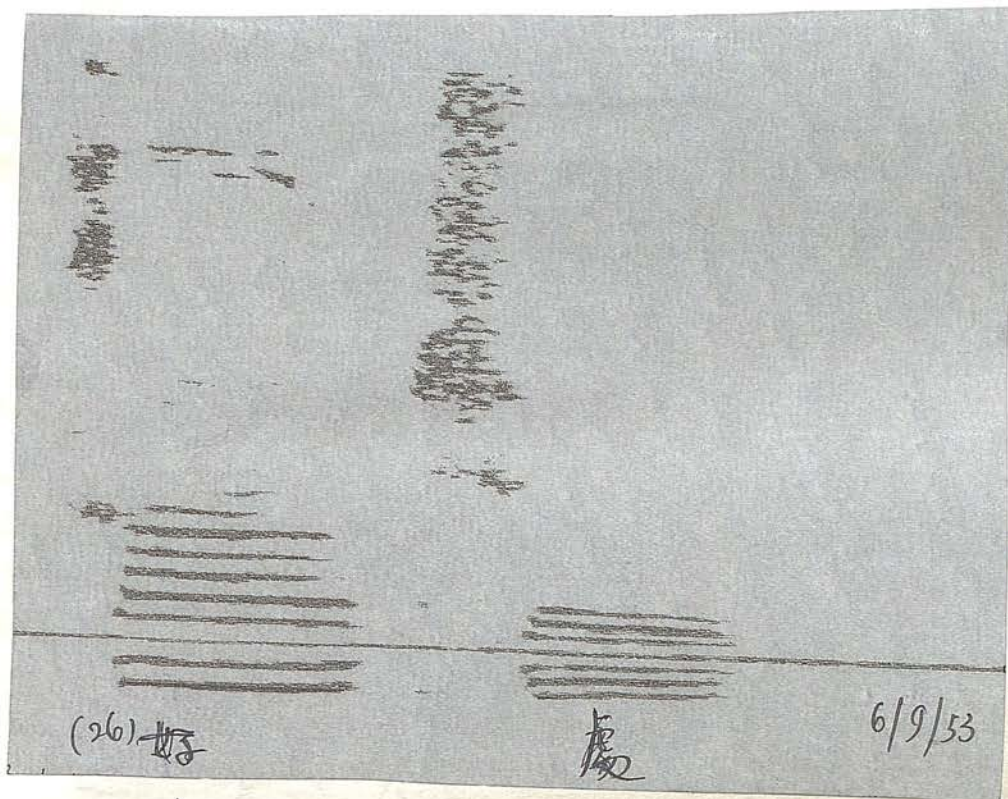


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Fig. 31





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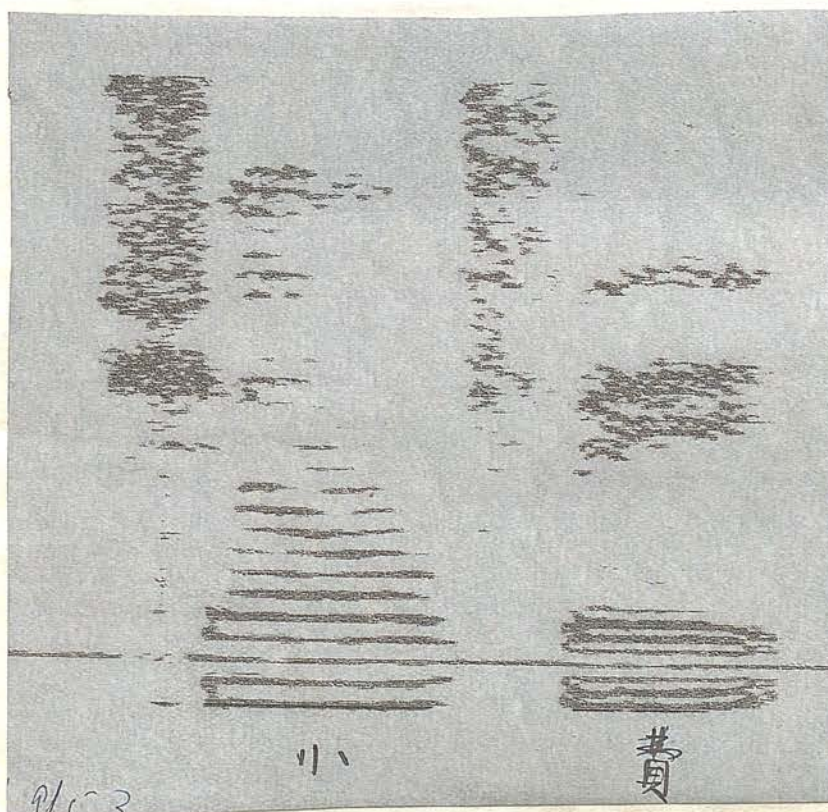
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Fig. 32



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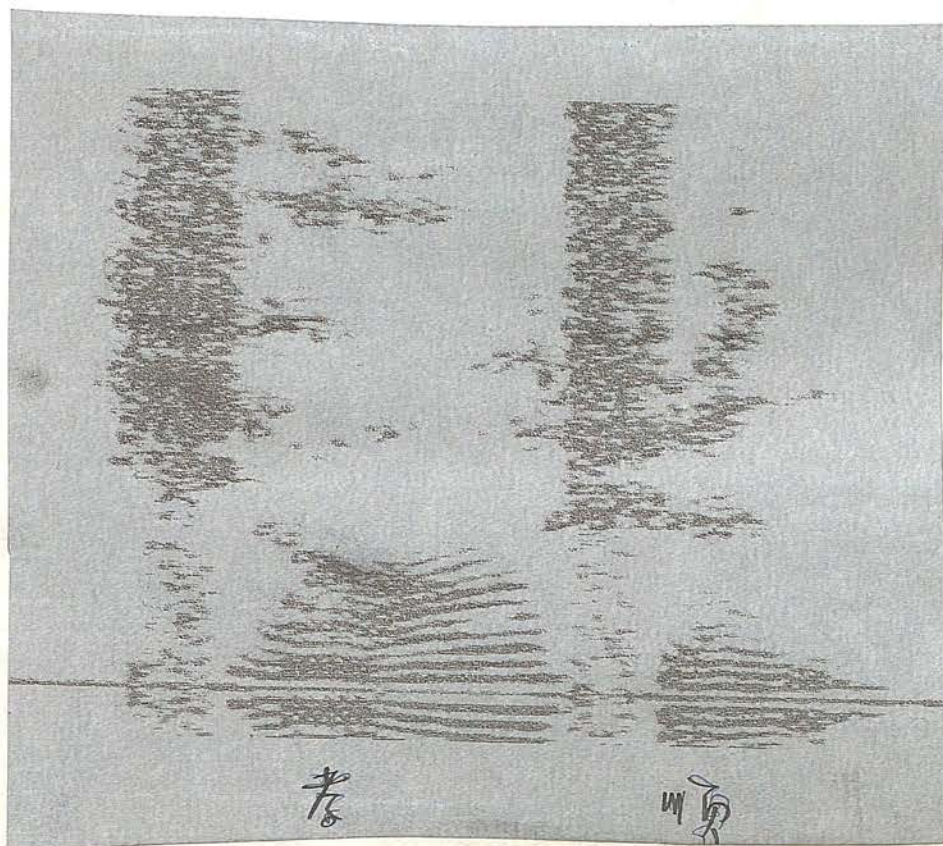
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Fig. 33

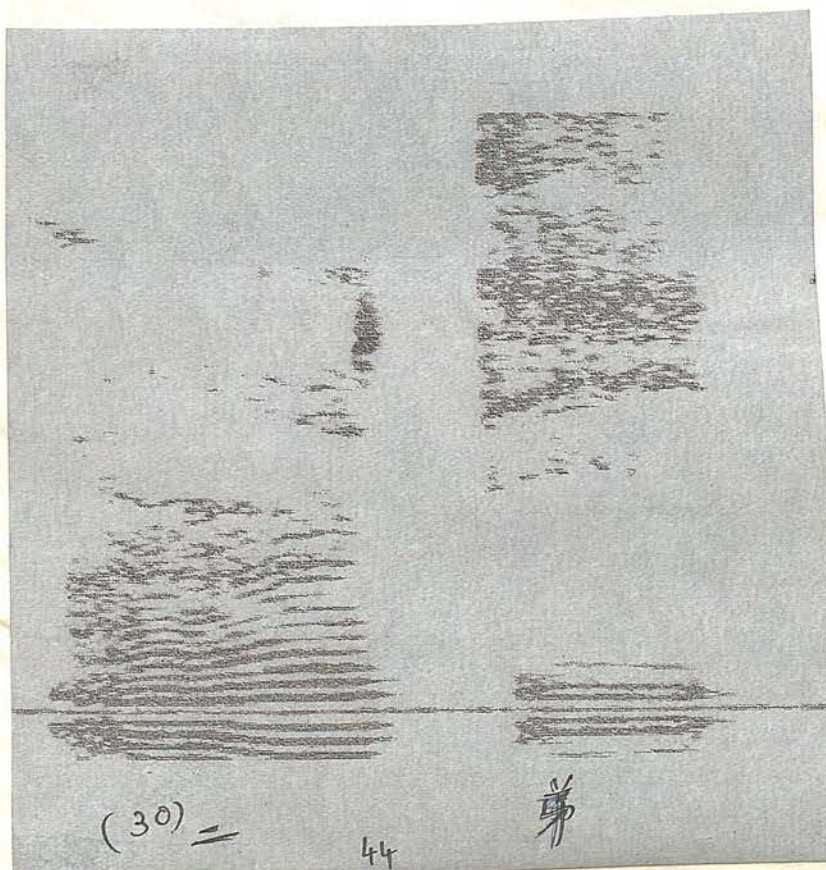




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Fig. 34



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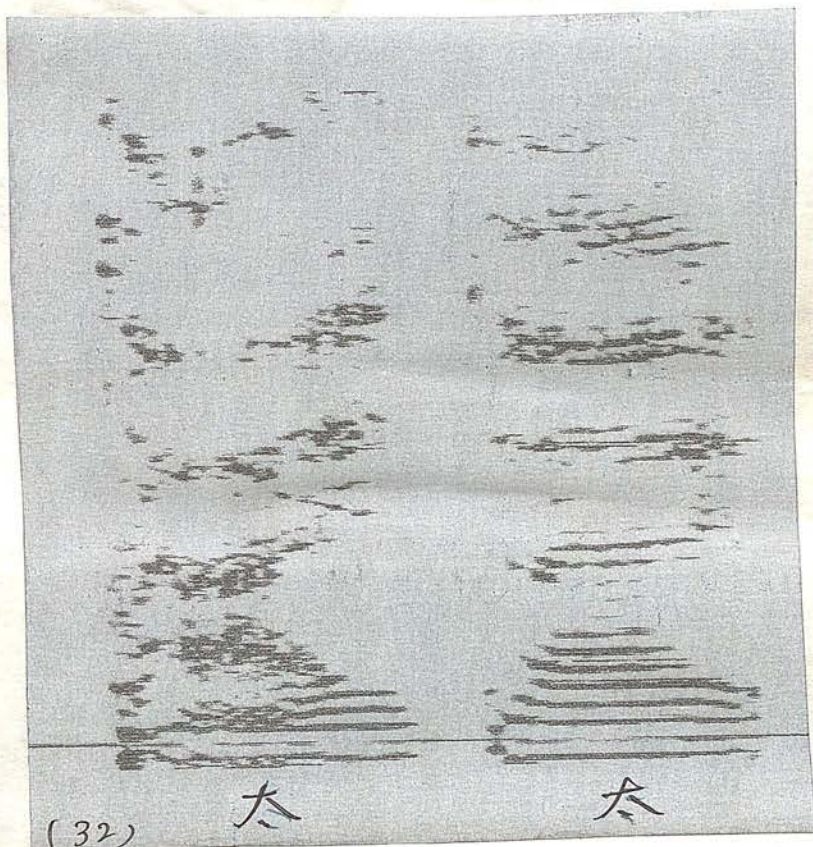
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Fig. 35



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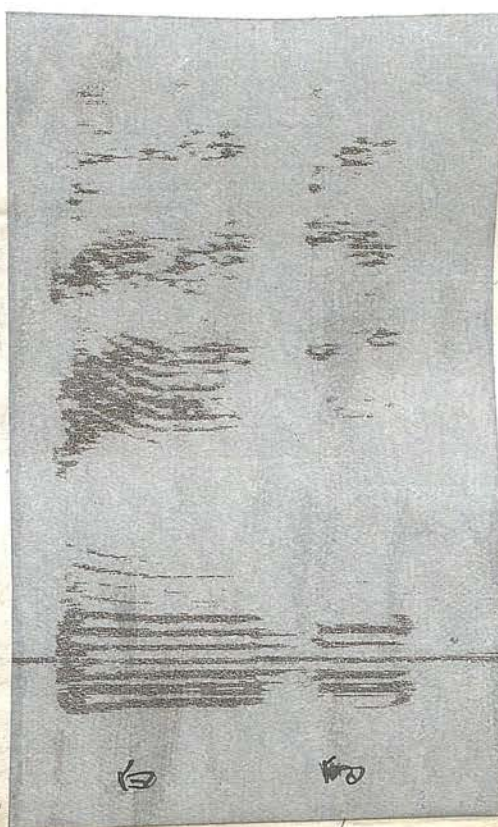
Fig. 30



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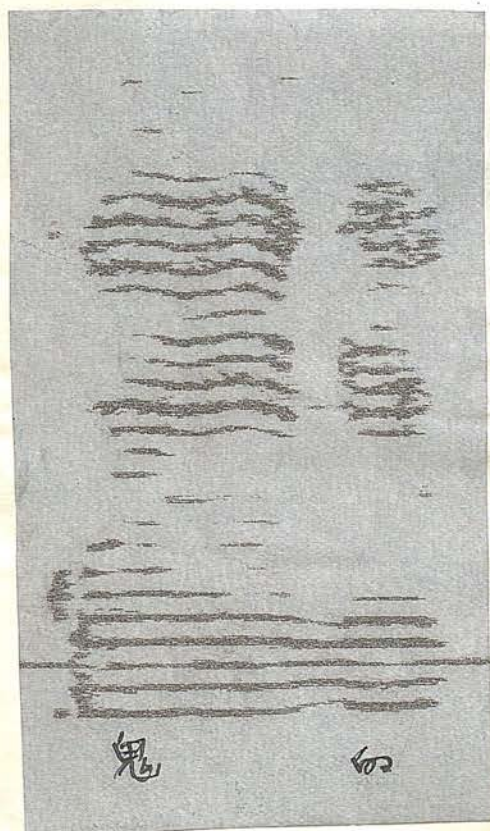
Fig. 37



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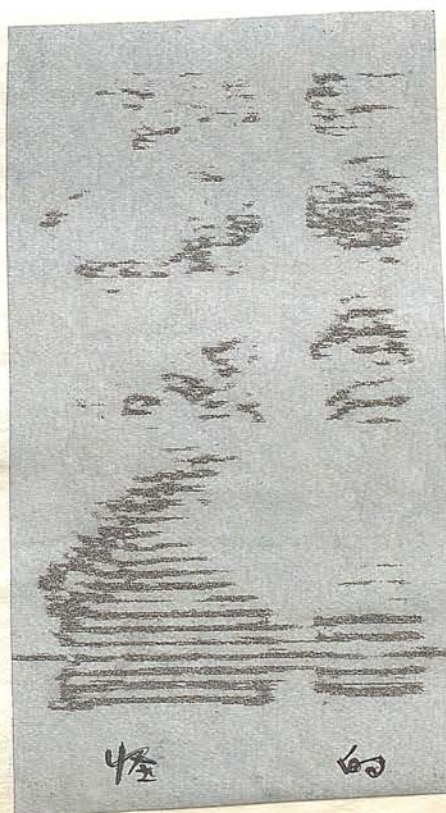
Fig. 38



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Fig. 39

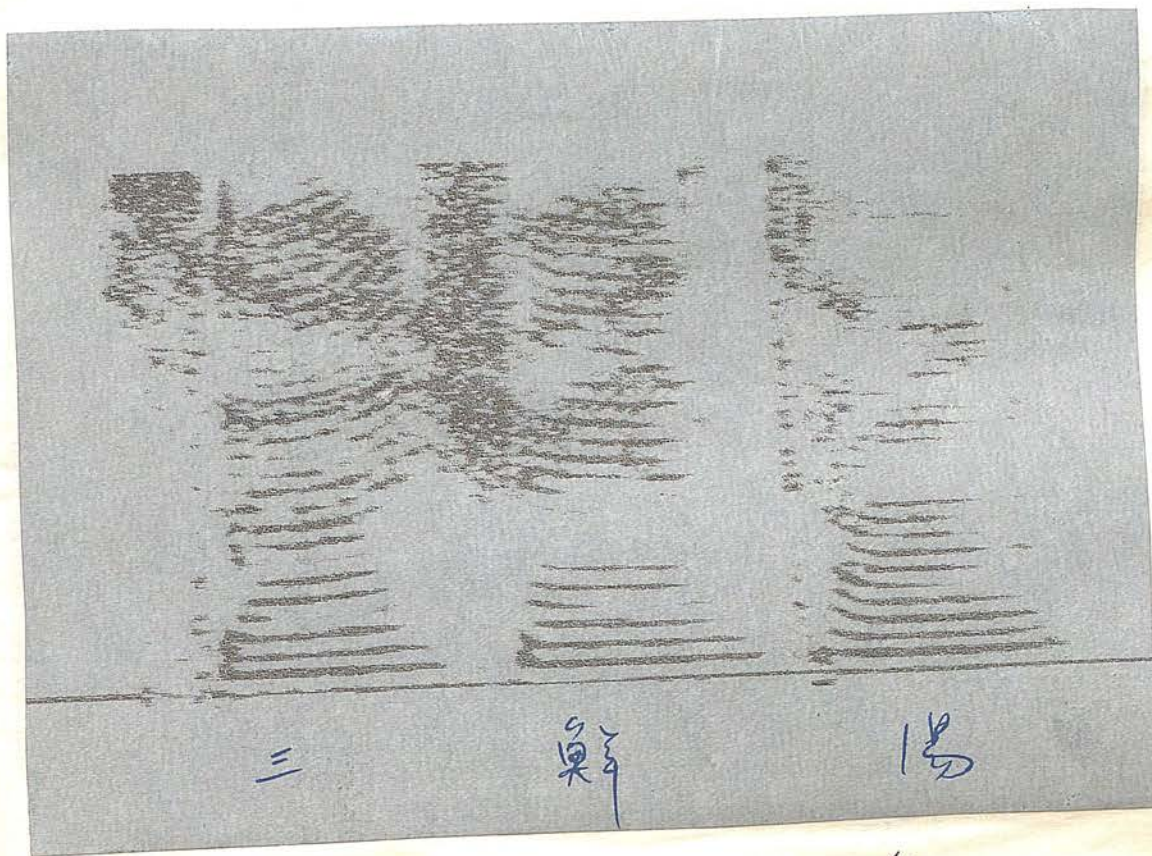


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fig. 40



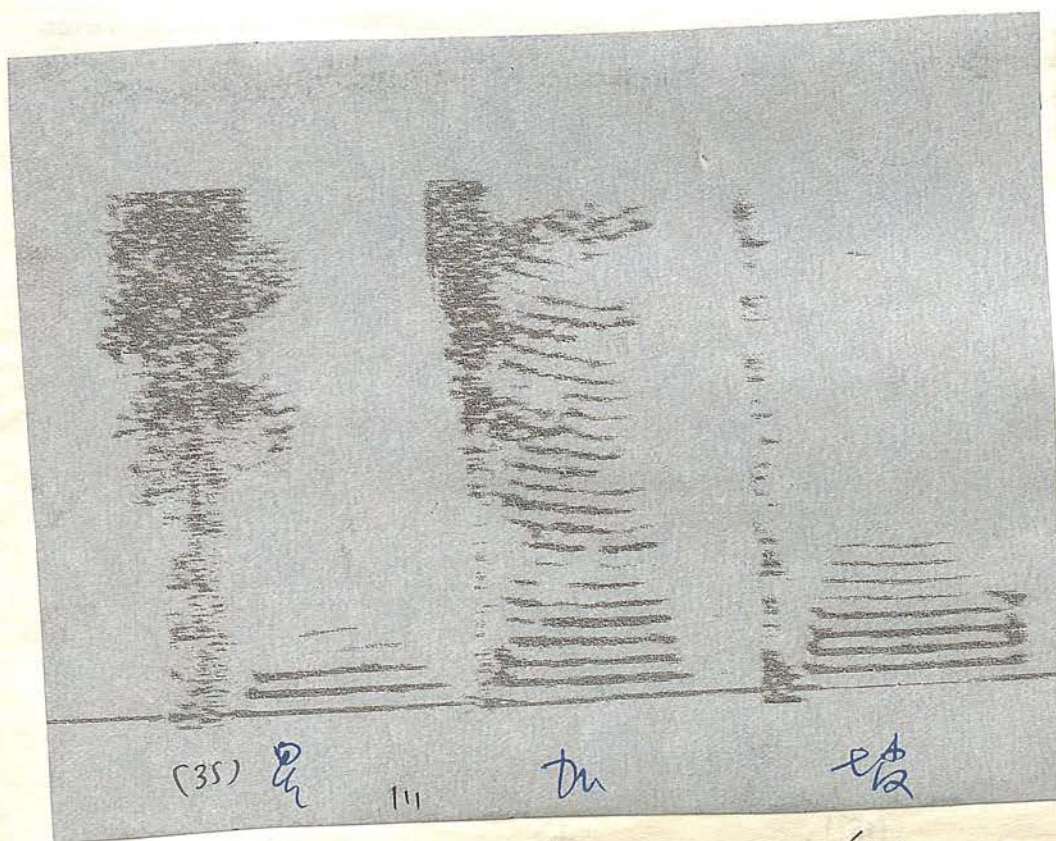


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Fig. 4.1



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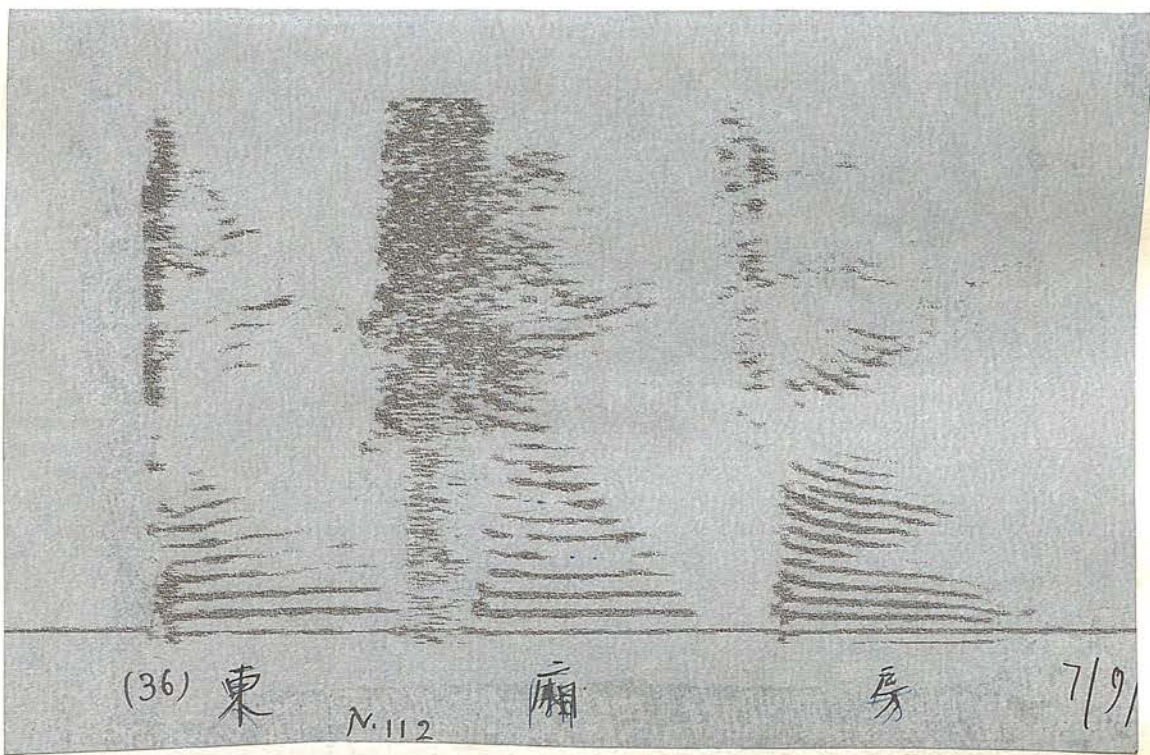
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Fig. 4.2

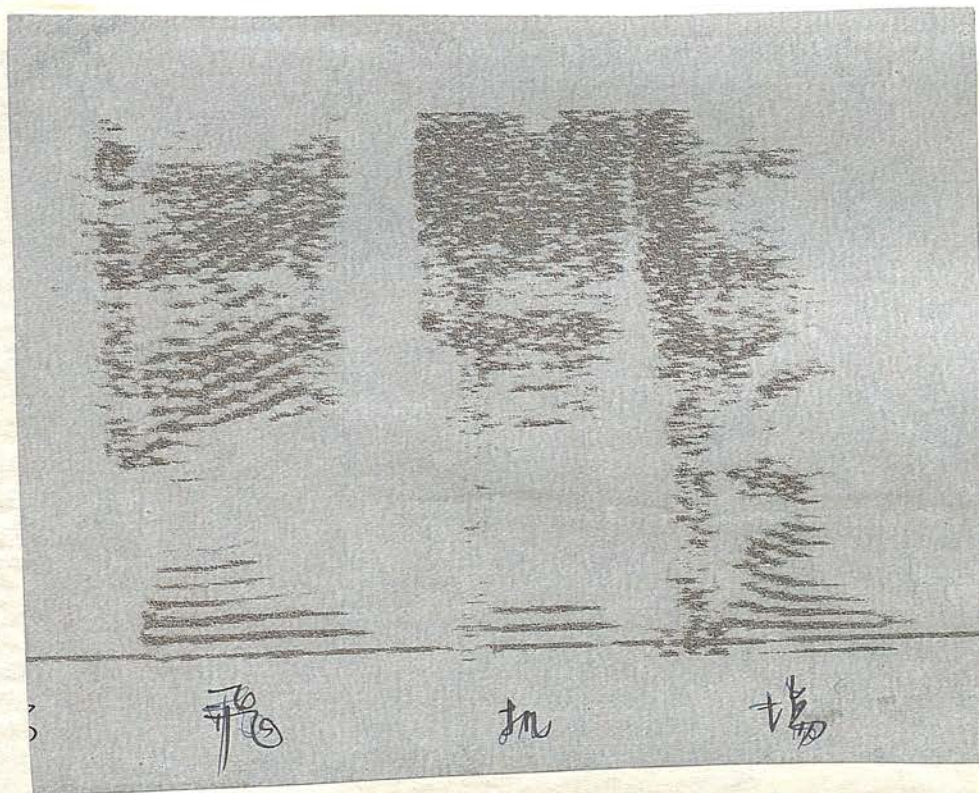


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Fig. 43

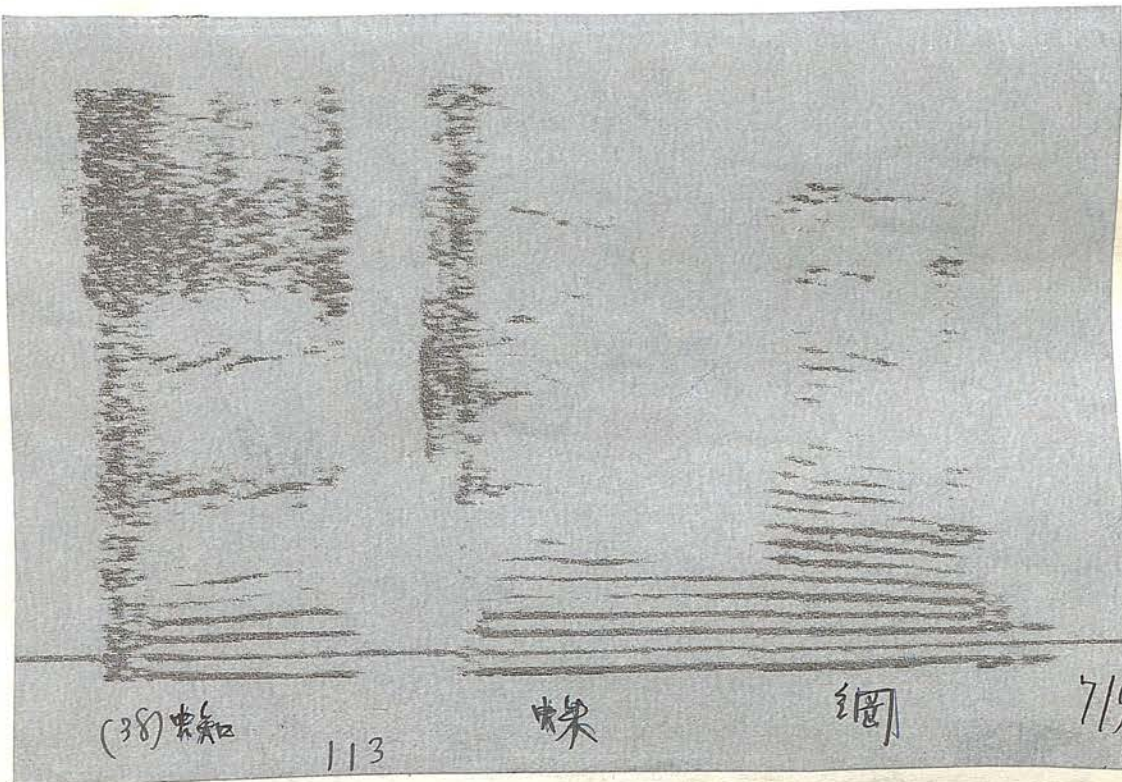


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Fig. 44

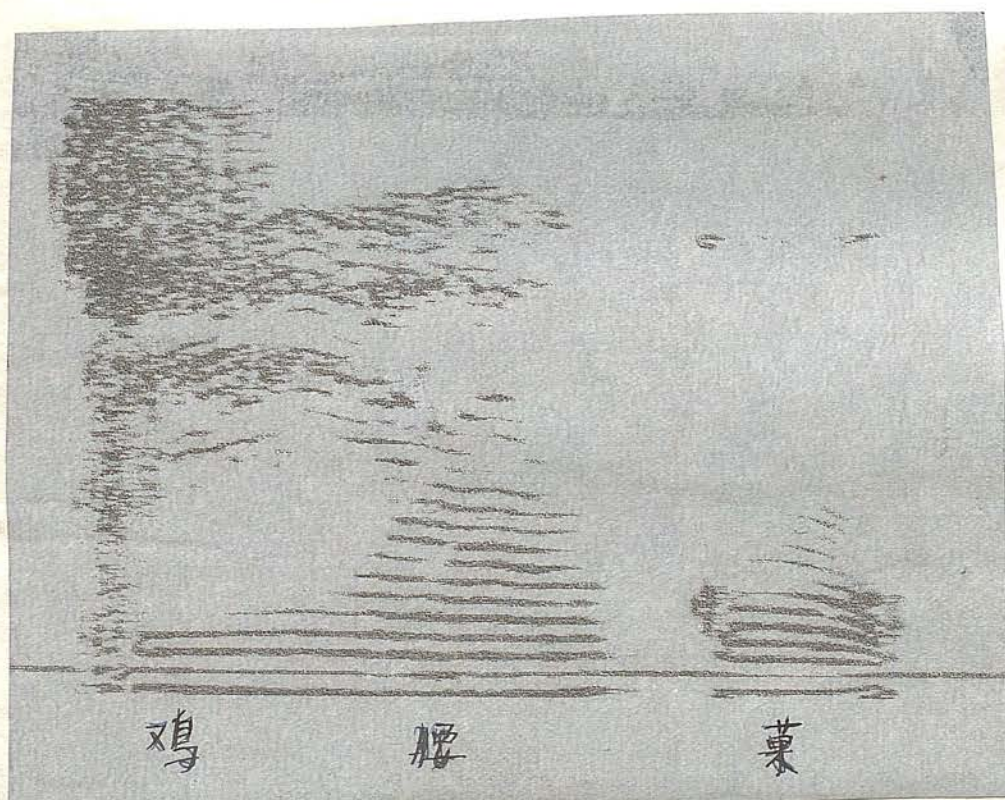


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Fig. 45

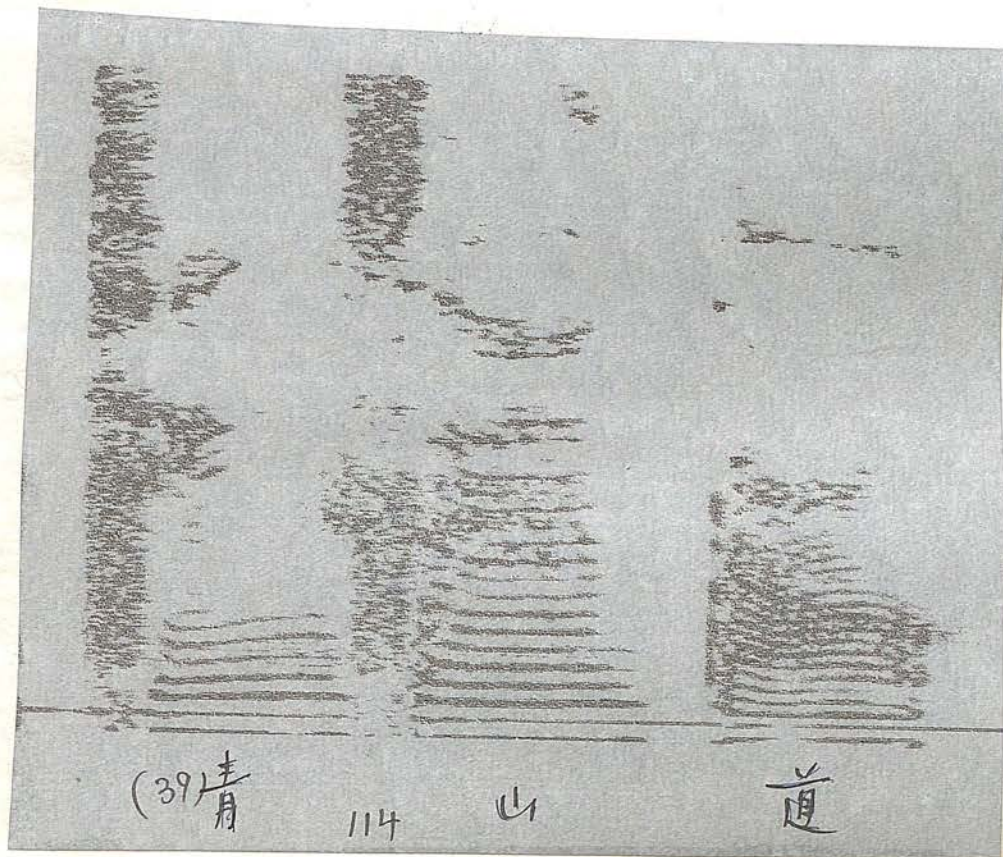


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fig. 46



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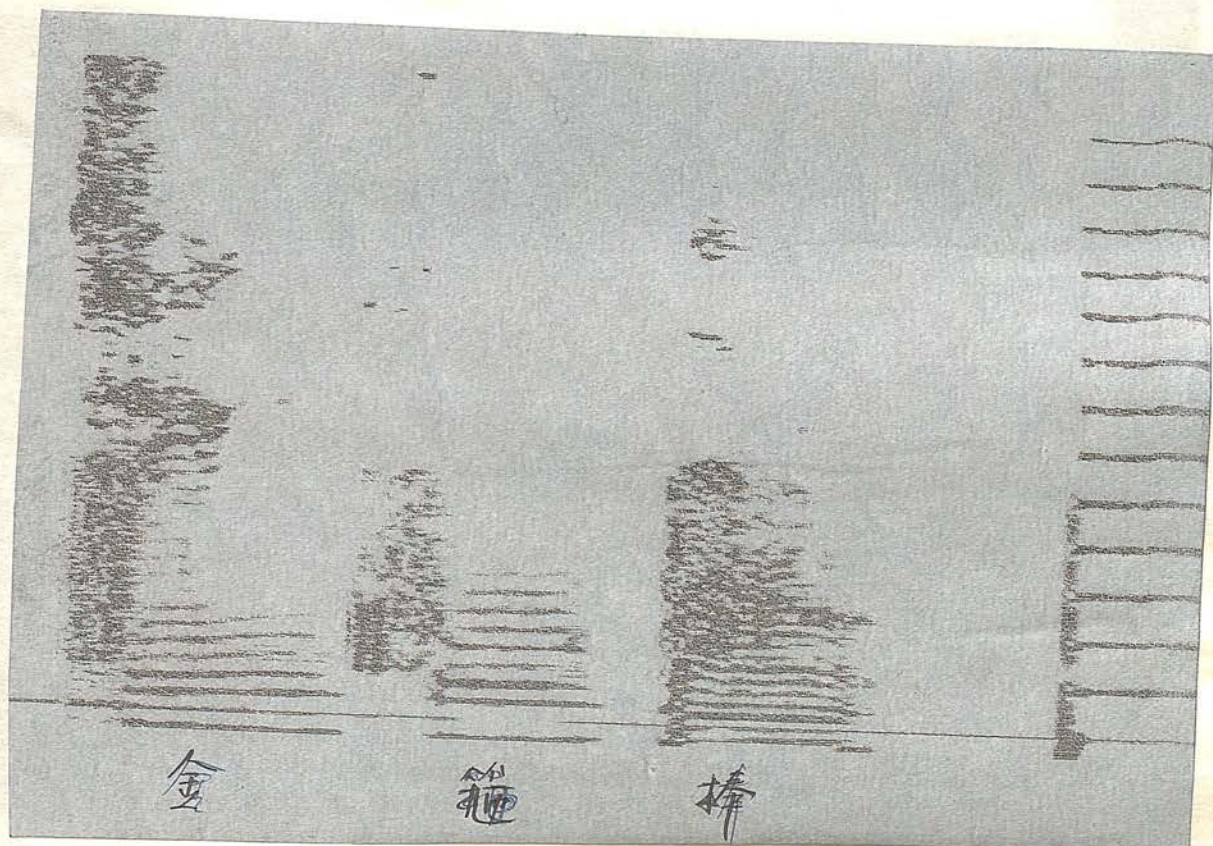
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Fig. 47



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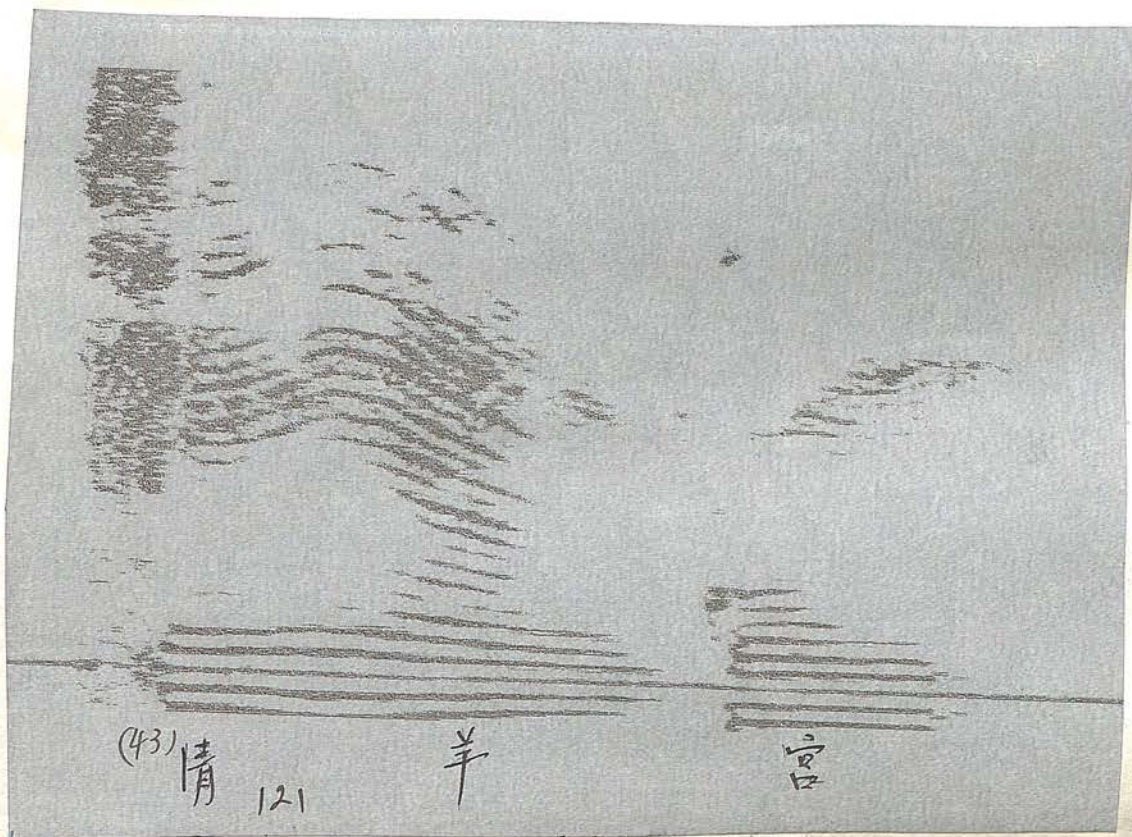
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Fig. 48



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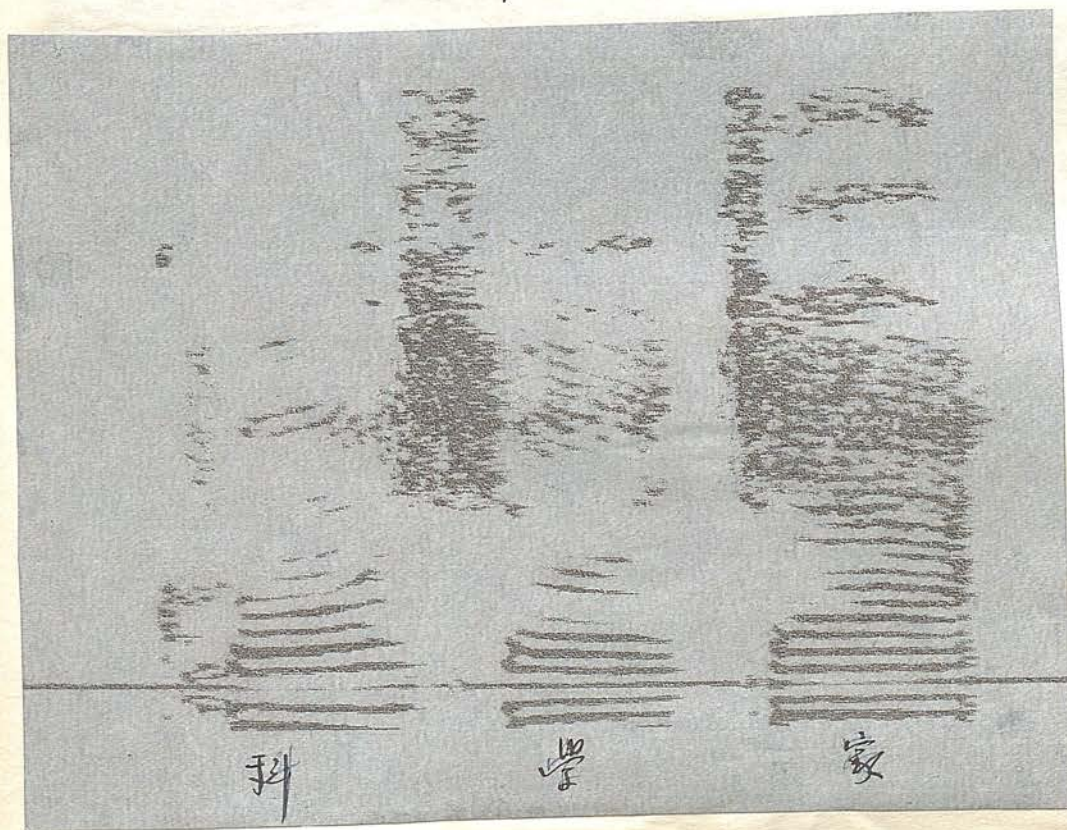
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Fig. 49



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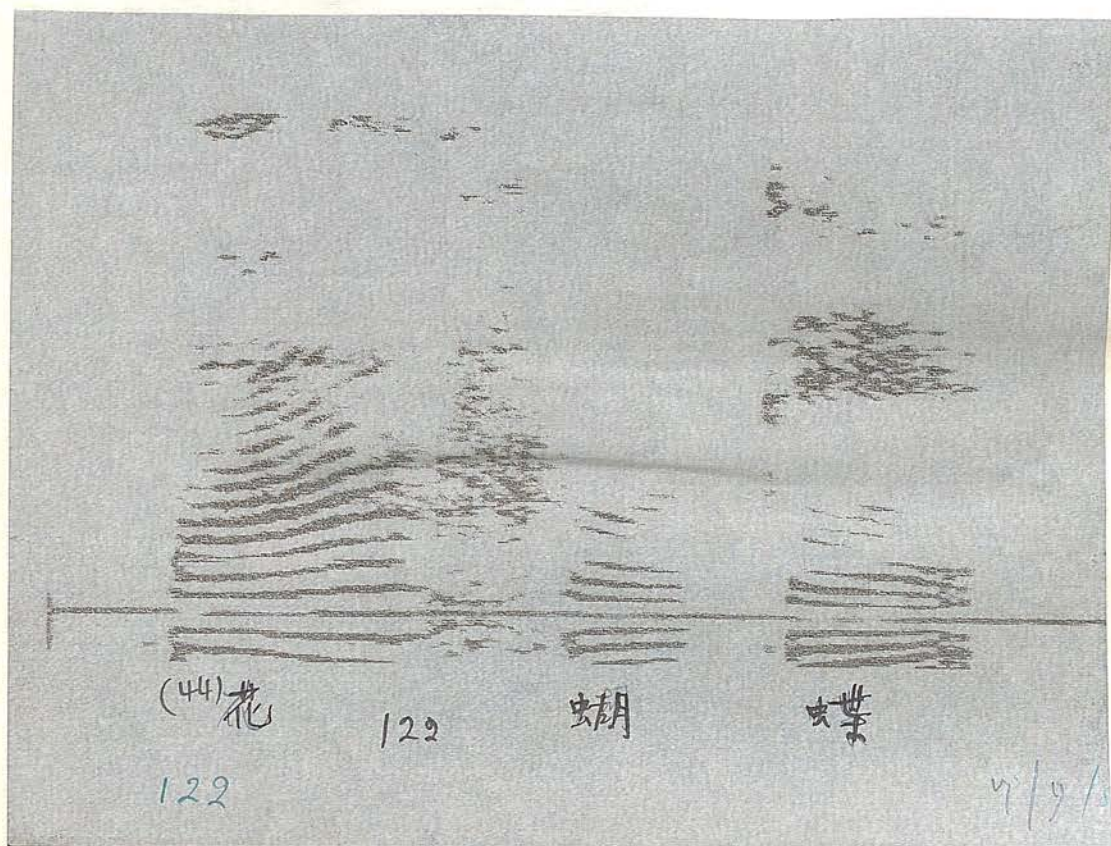
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Fig. 50

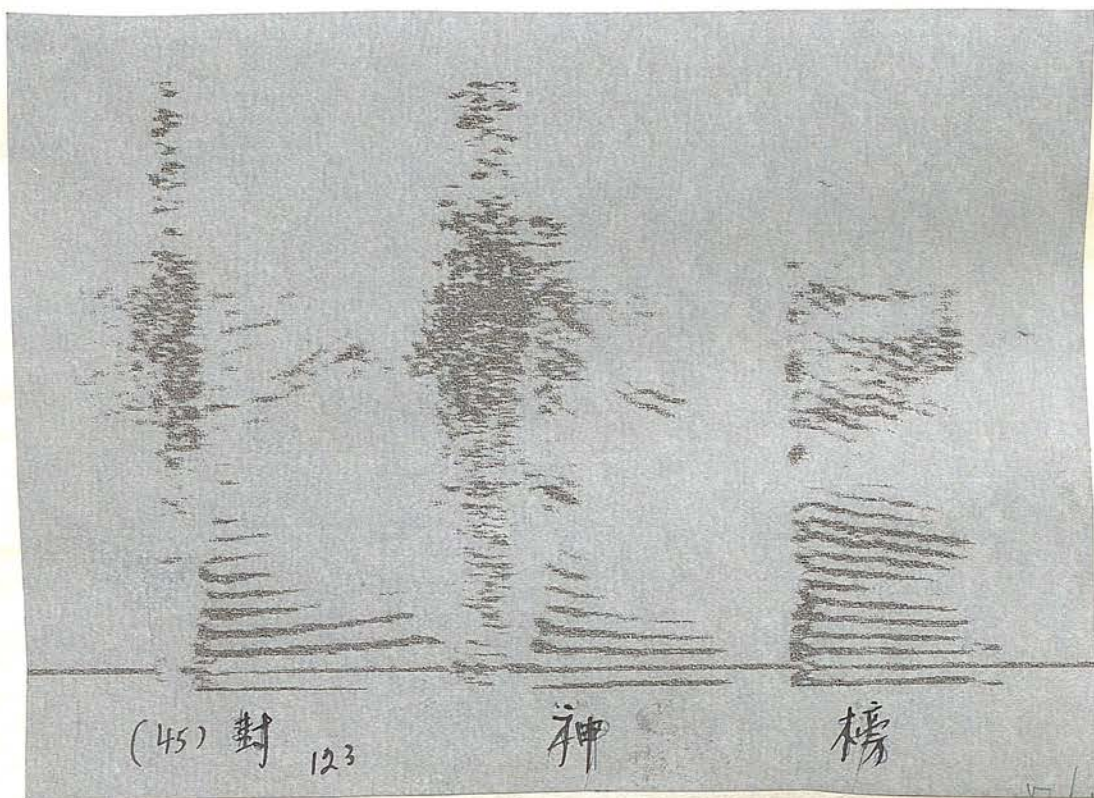


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fig. 51

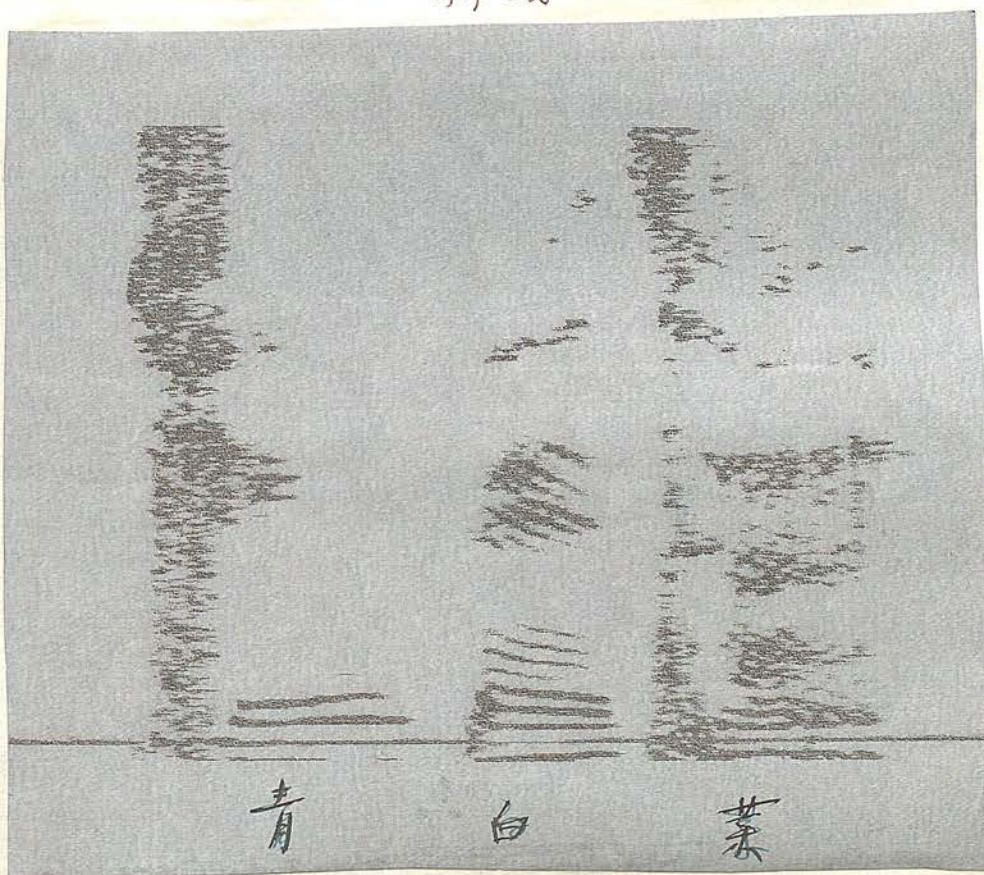


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Fig. 52

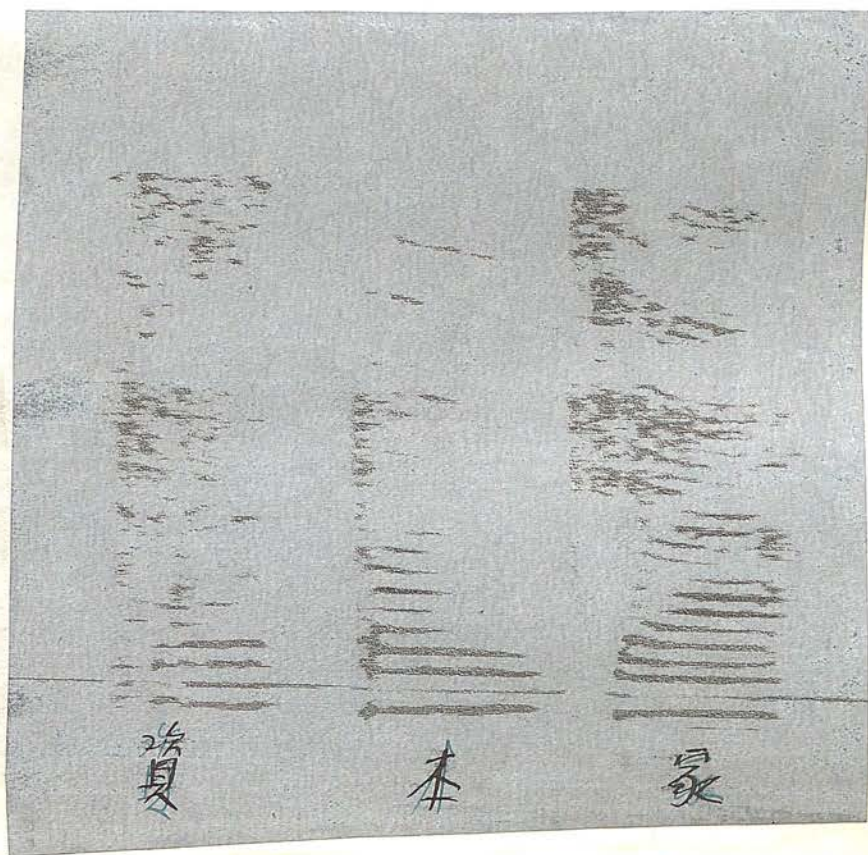


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Fig. 53

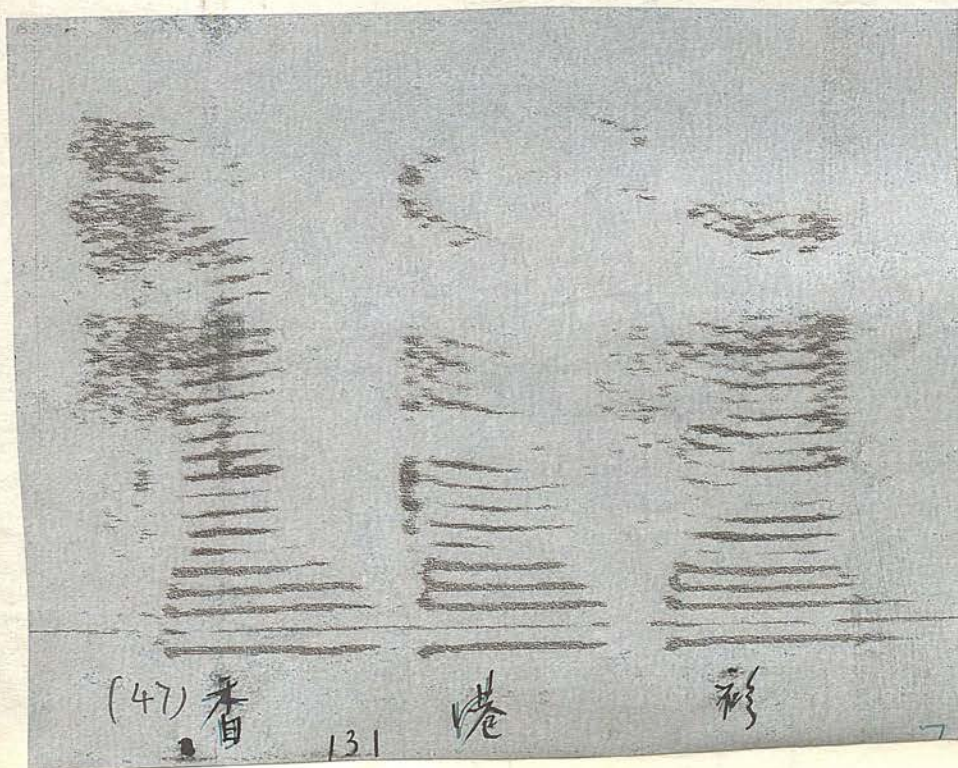


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fig. 54



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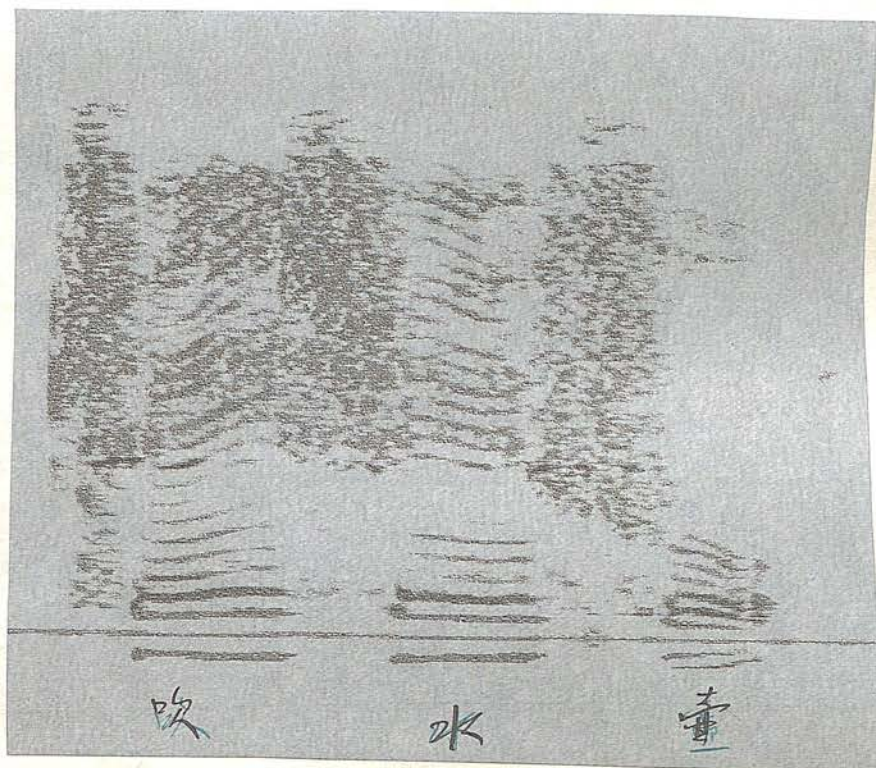
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Fig. 55



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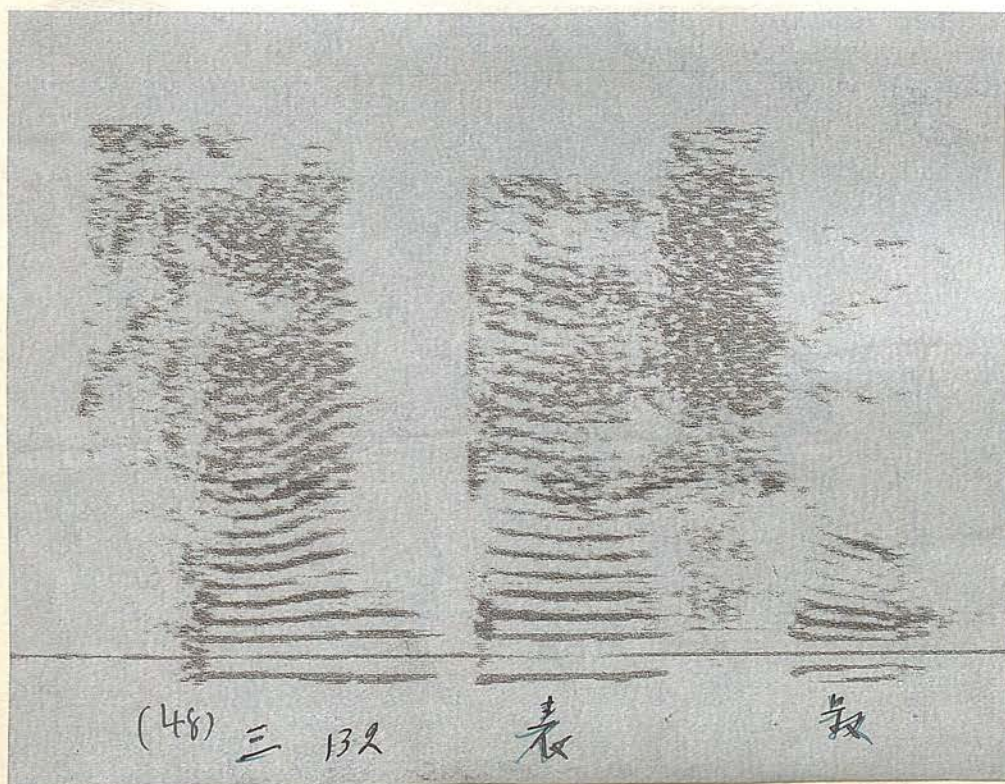
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Fig. 56



(48) 三 132

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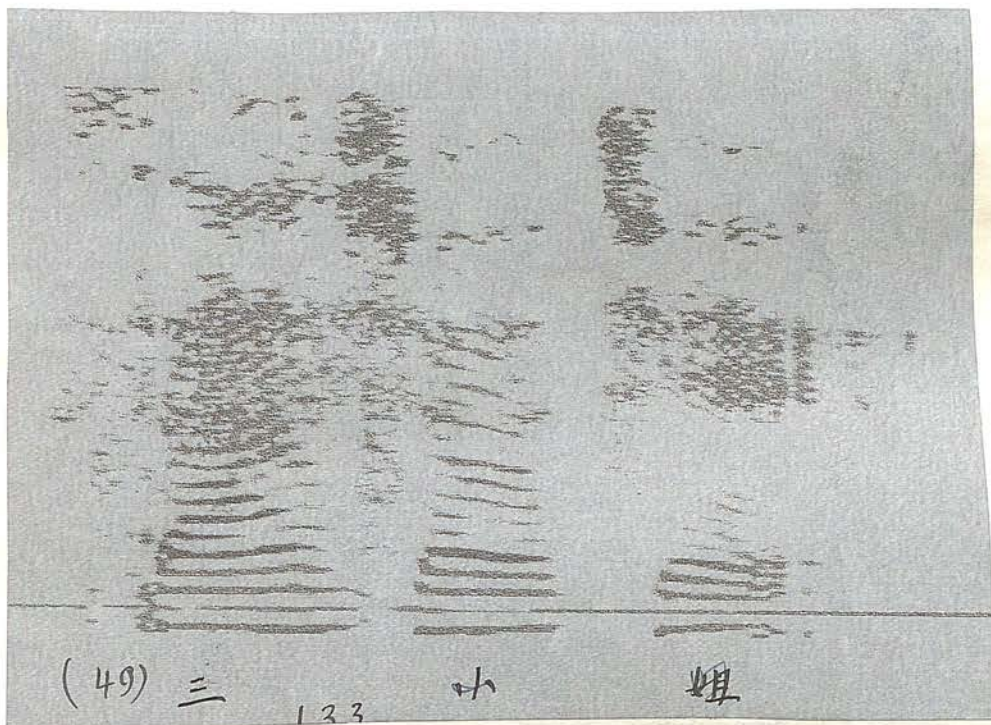
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Fig. 57



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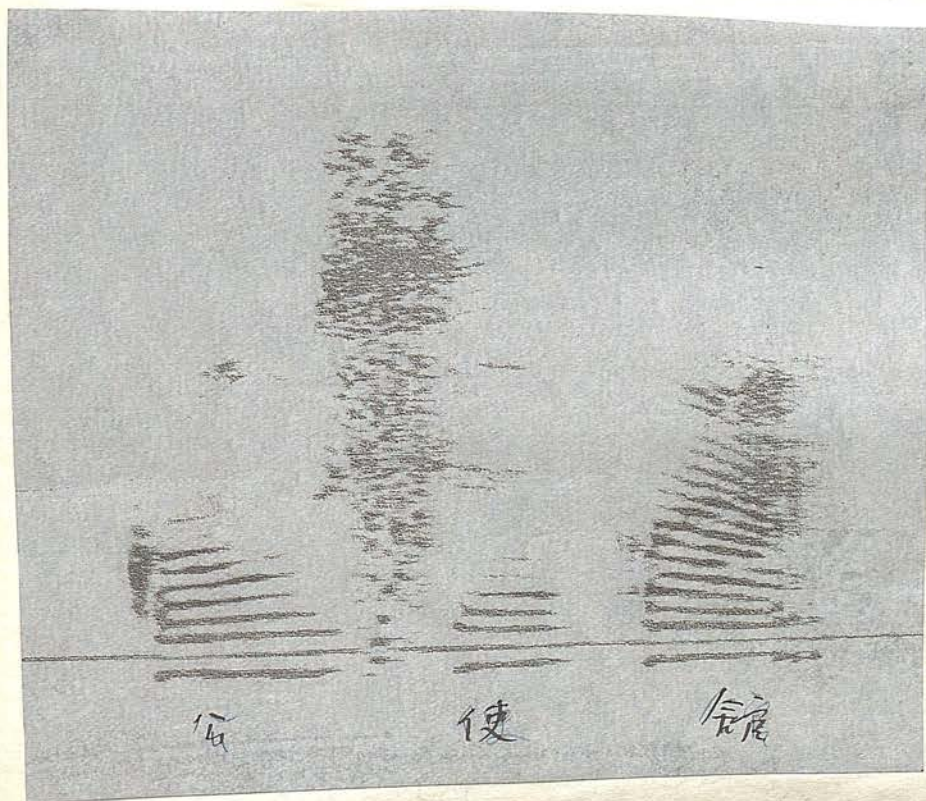
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Fig. 58



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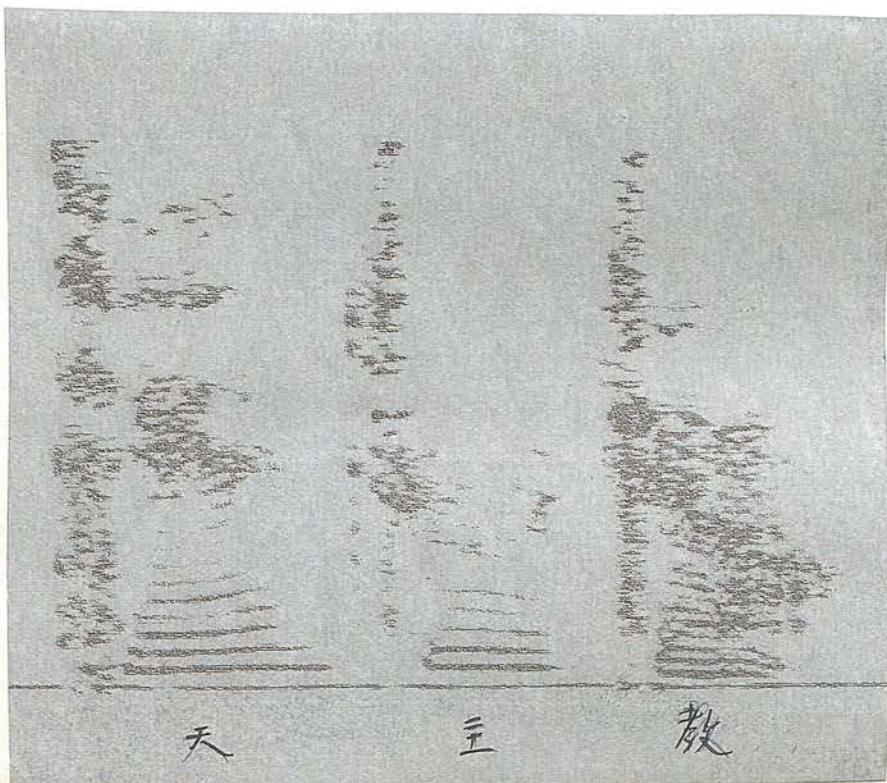
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Fig. 59



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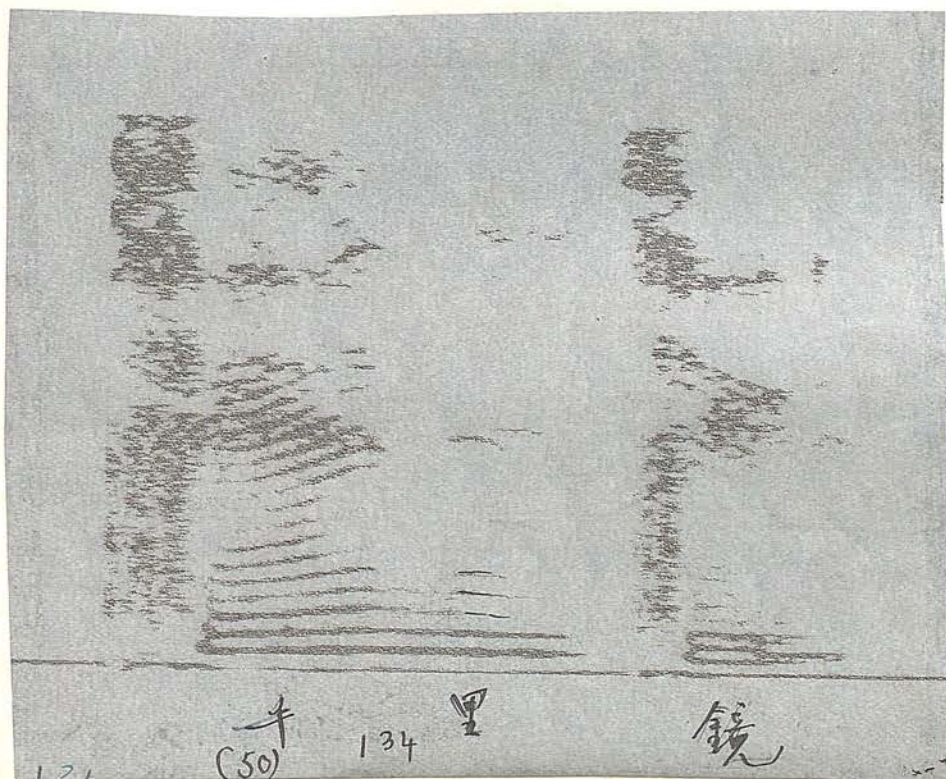
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Fig. 60



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Fig. 61

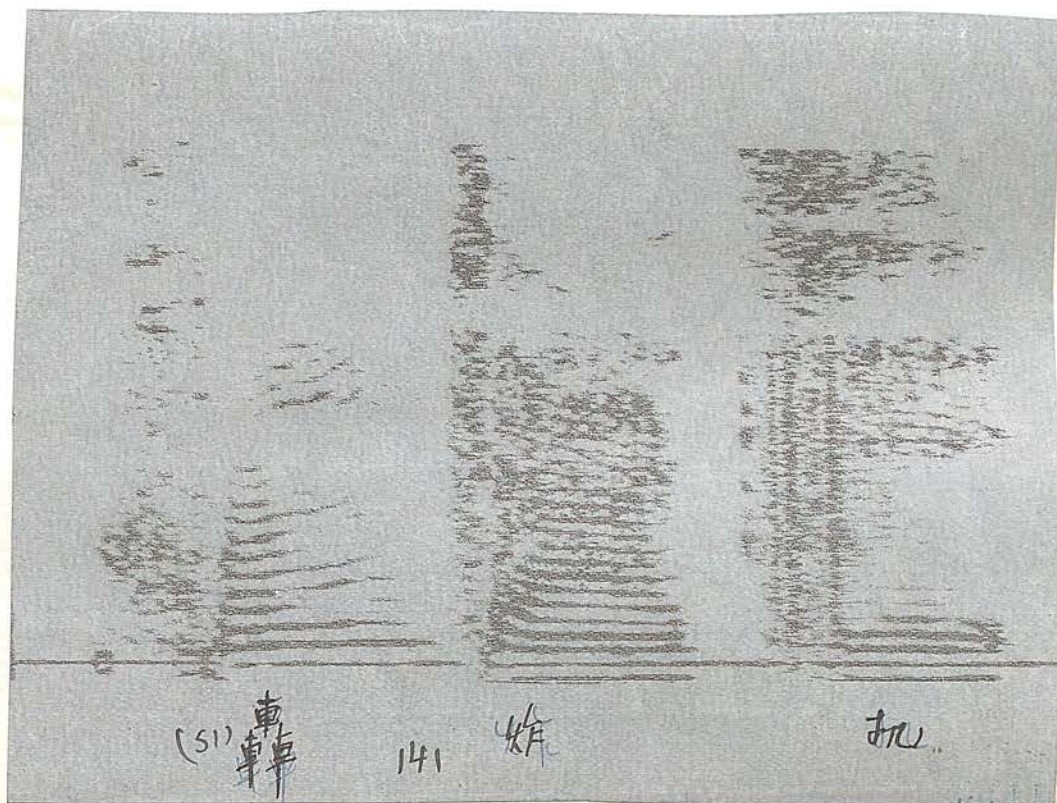


Fig. 62

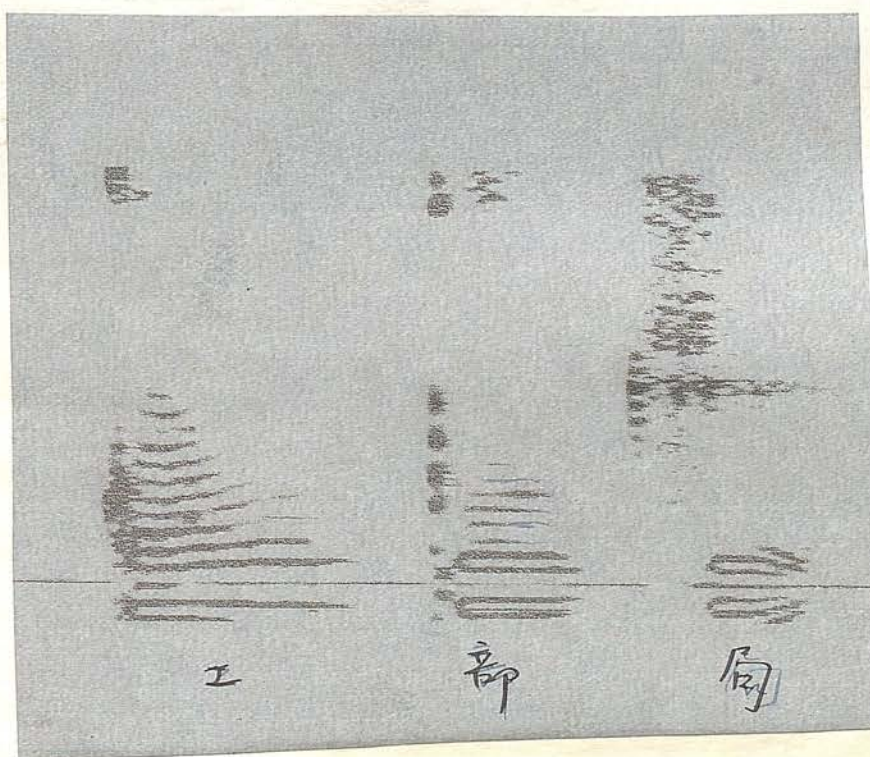
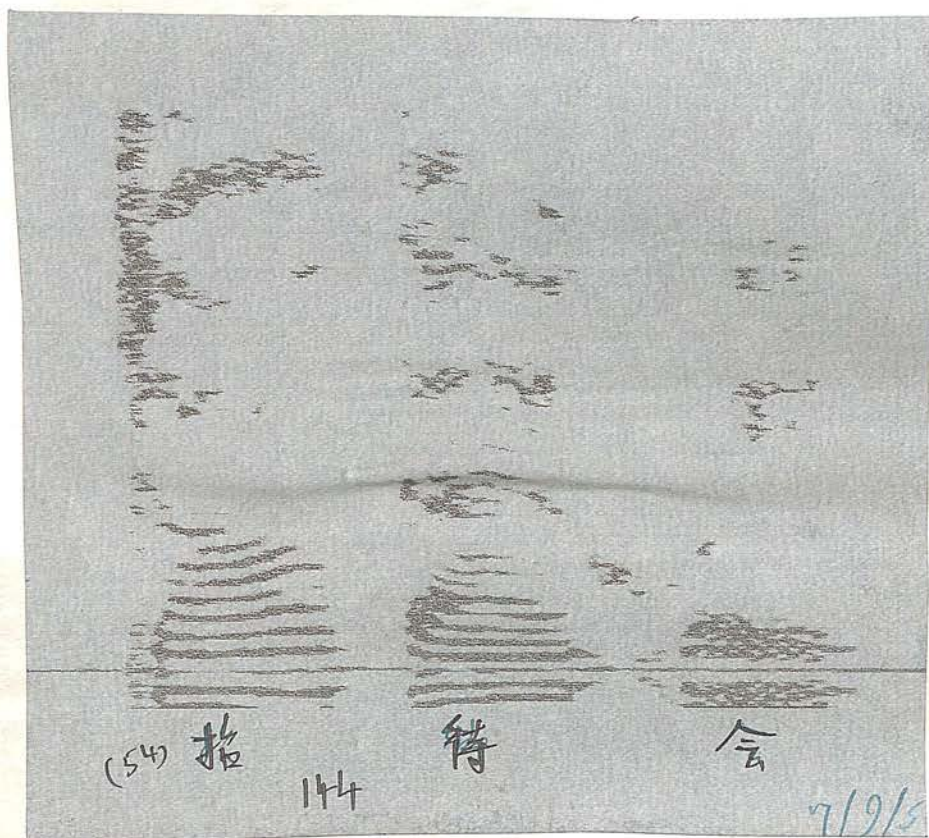


Fig. 63



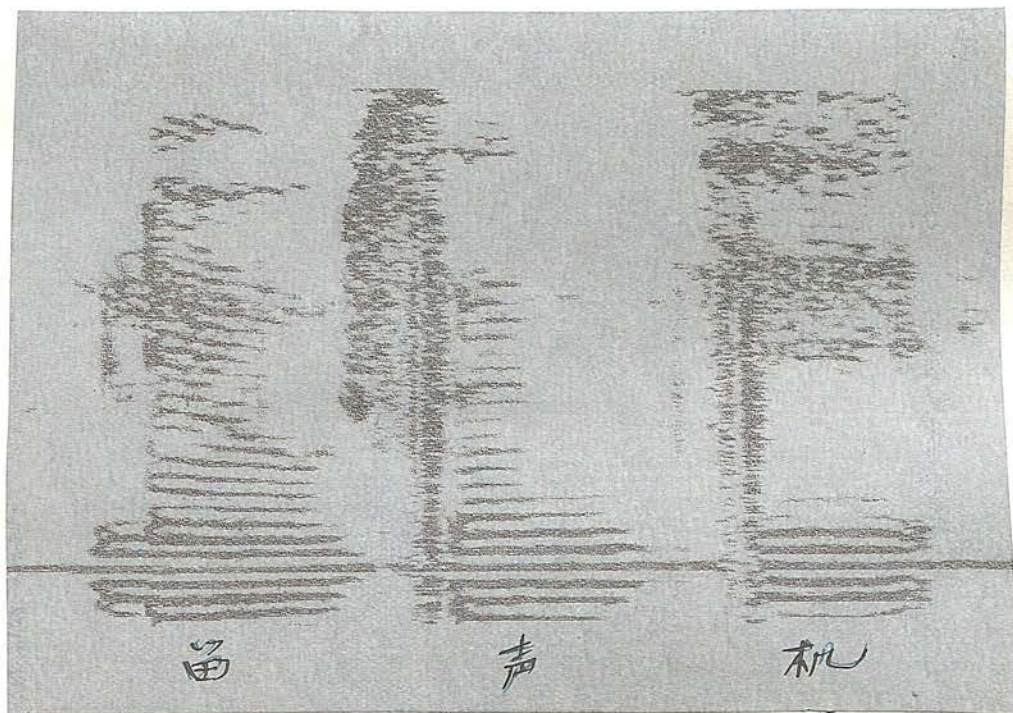


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fig. 64



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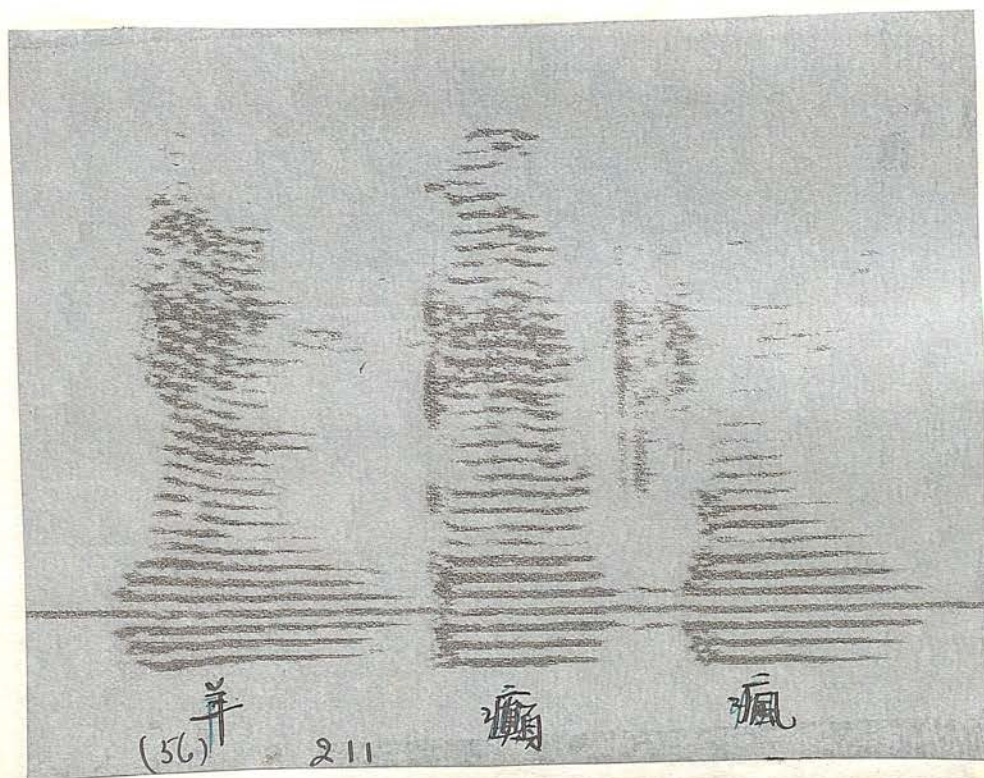
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fig. 65



(56) 羊

211

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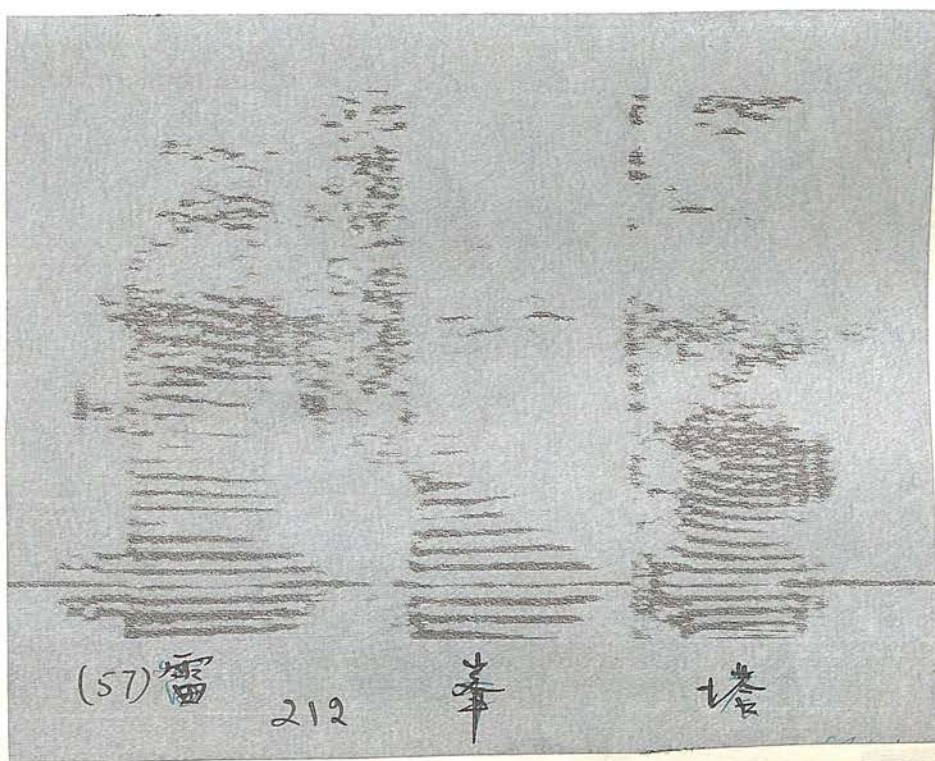
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fig. 66



(57) 雷

212

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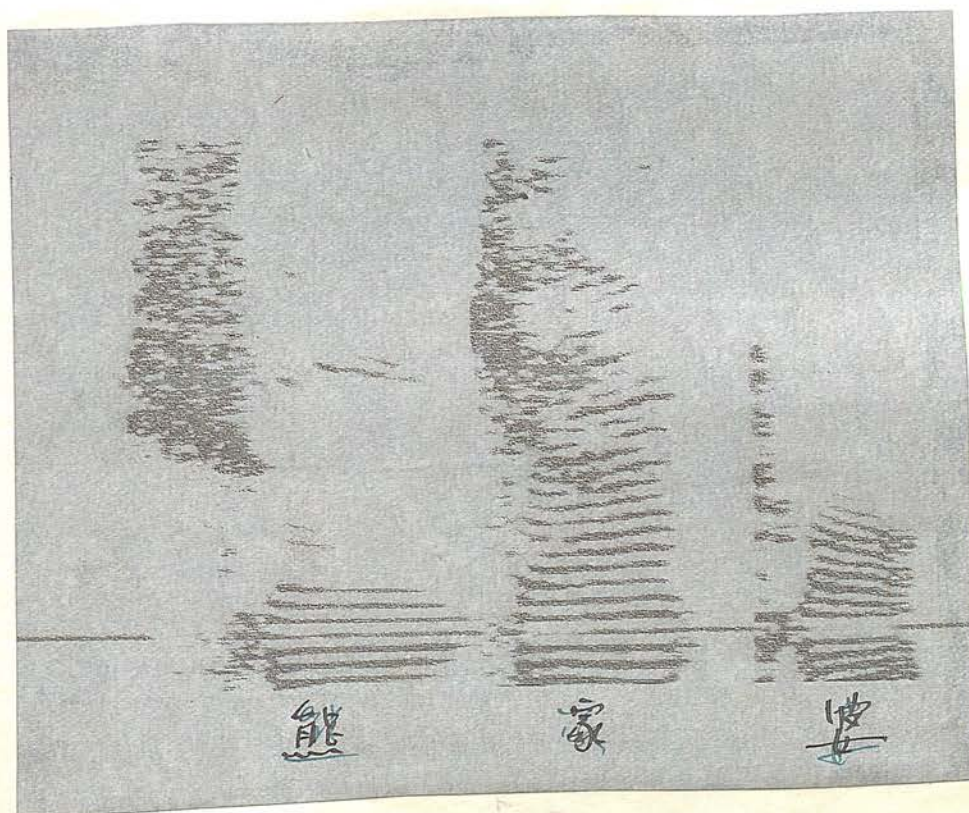
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Fig. 67



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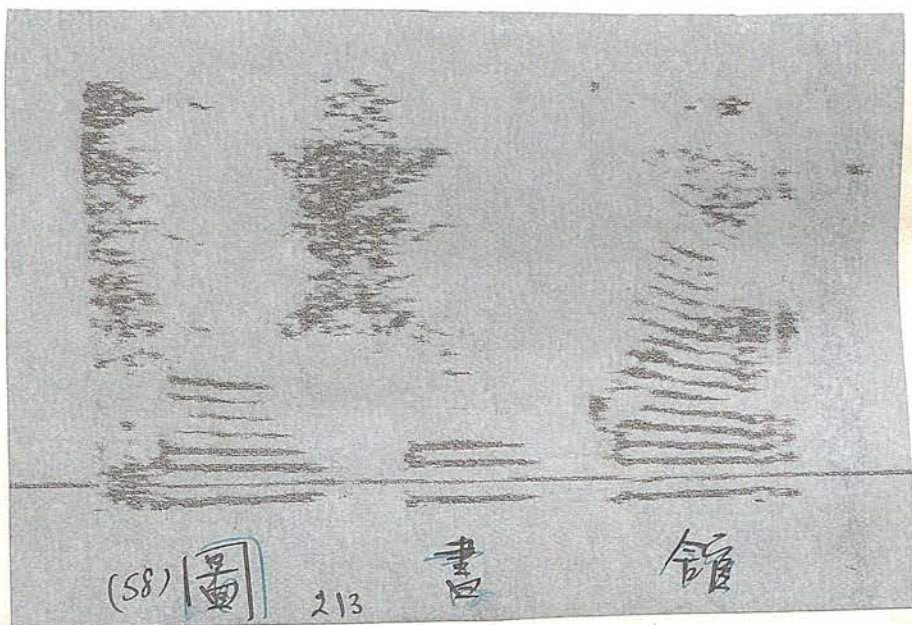
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Fig. 68



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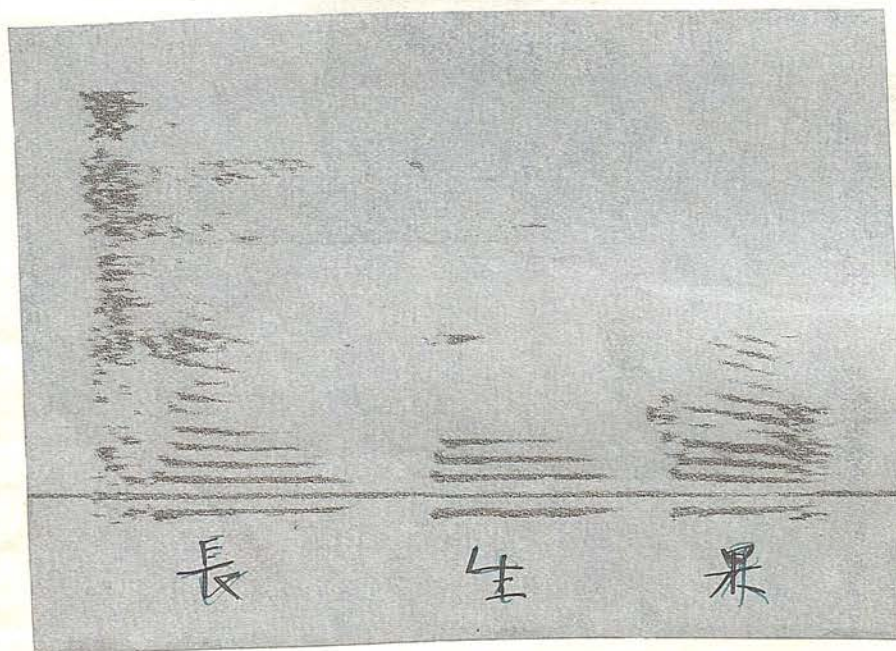
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Fig. 69



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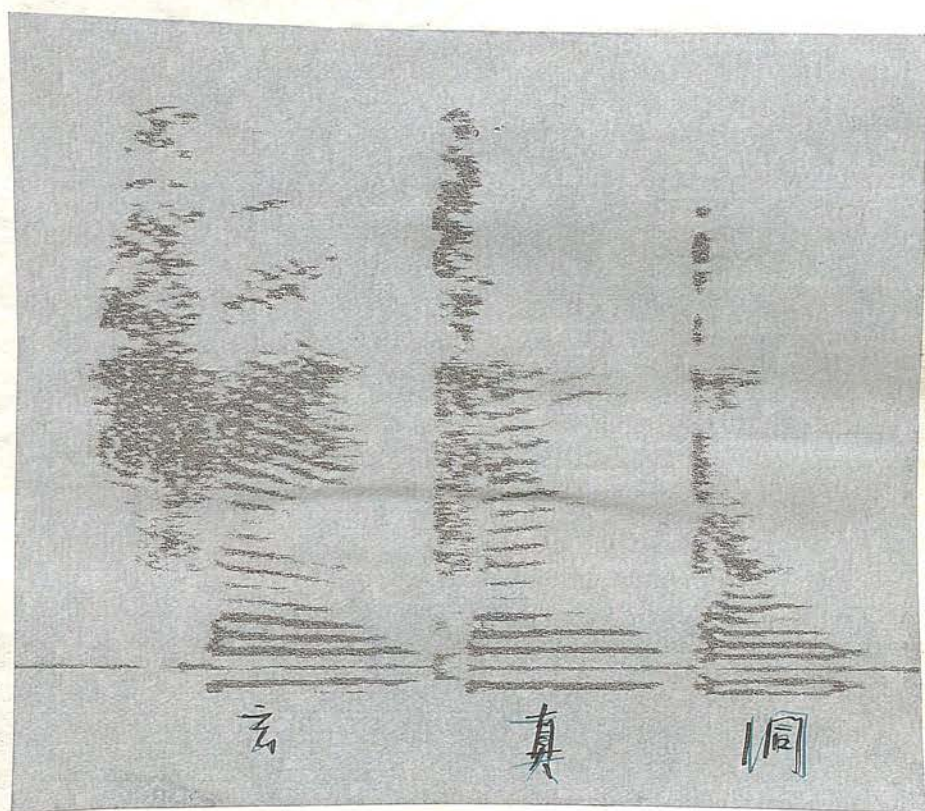
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Fig. 70

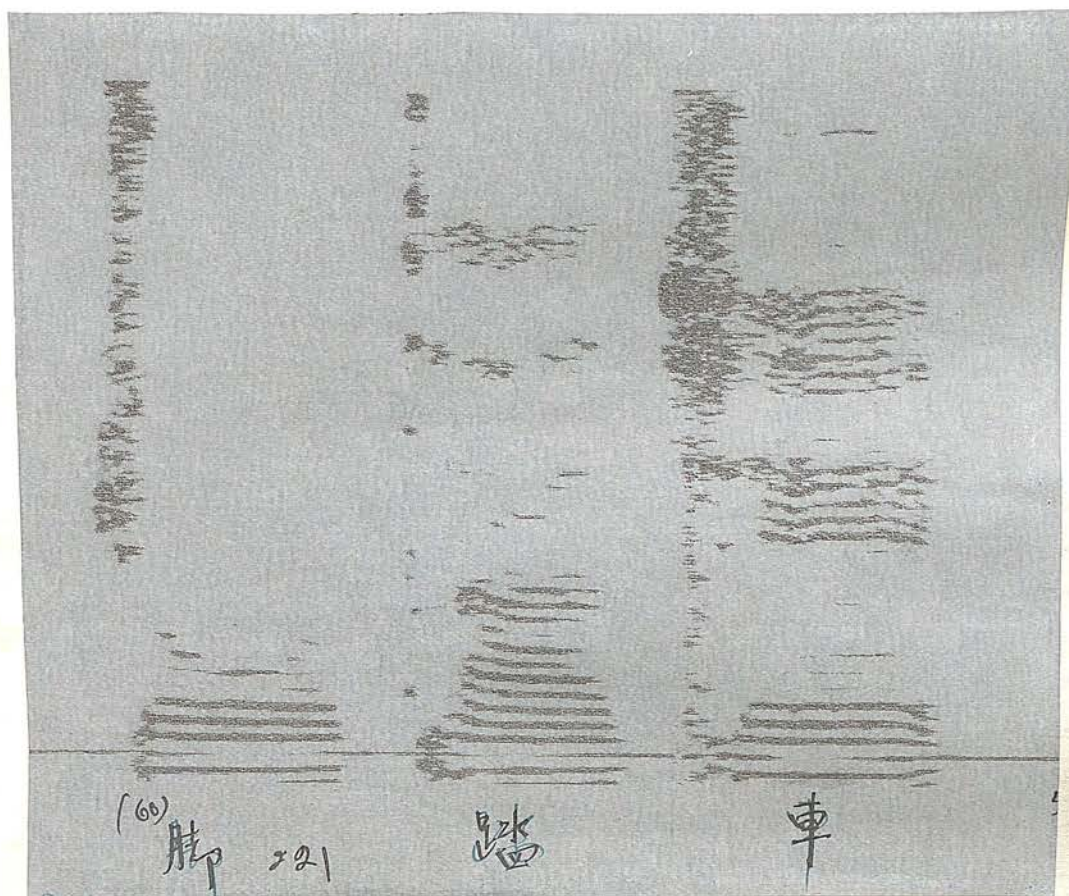


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Fig. 71



(60) 脚 221

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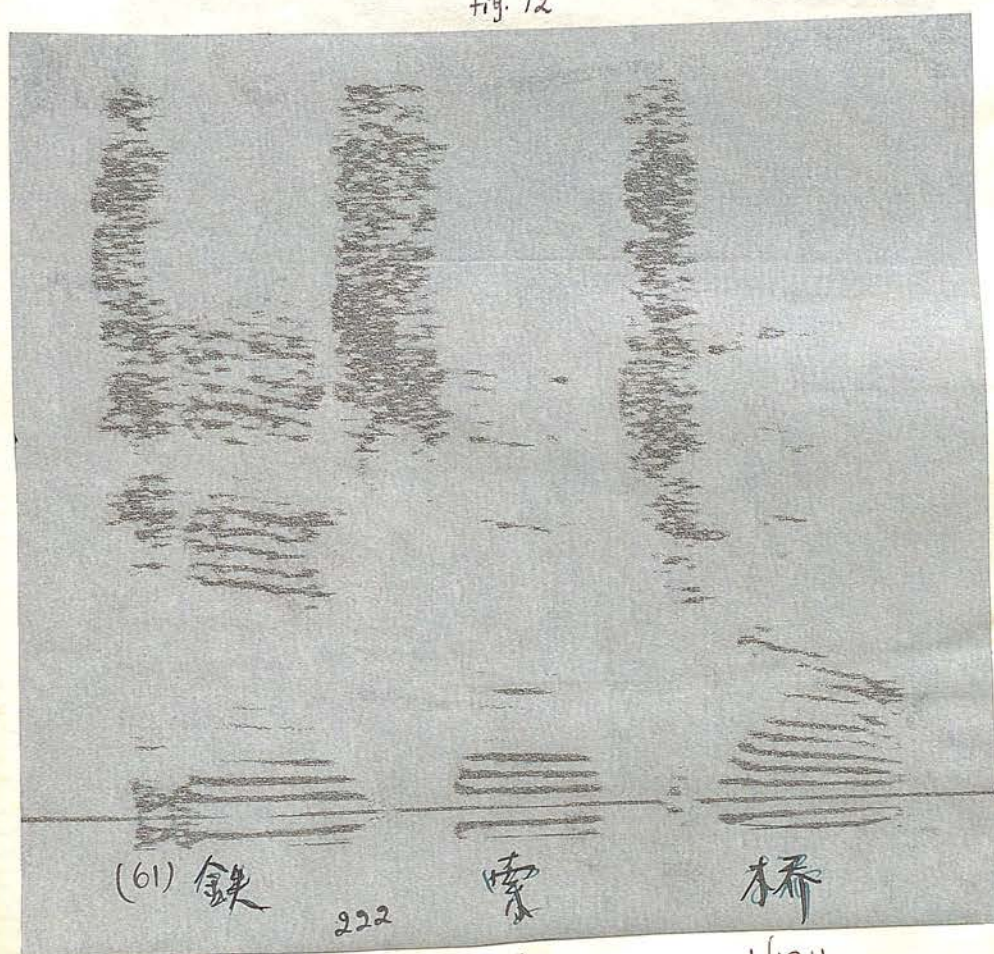
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Fig. 72



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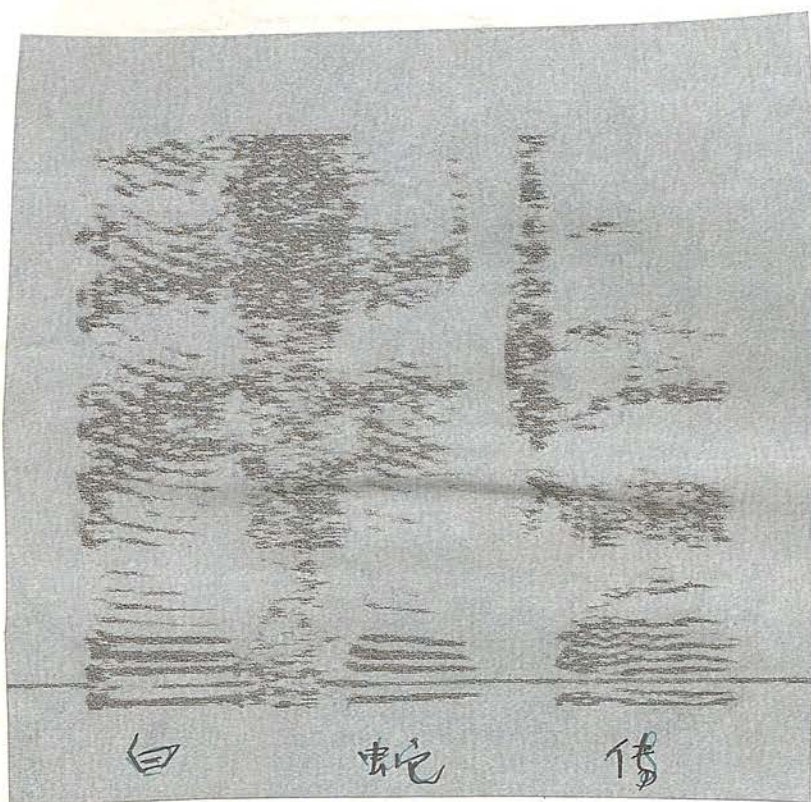
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Fig. 73

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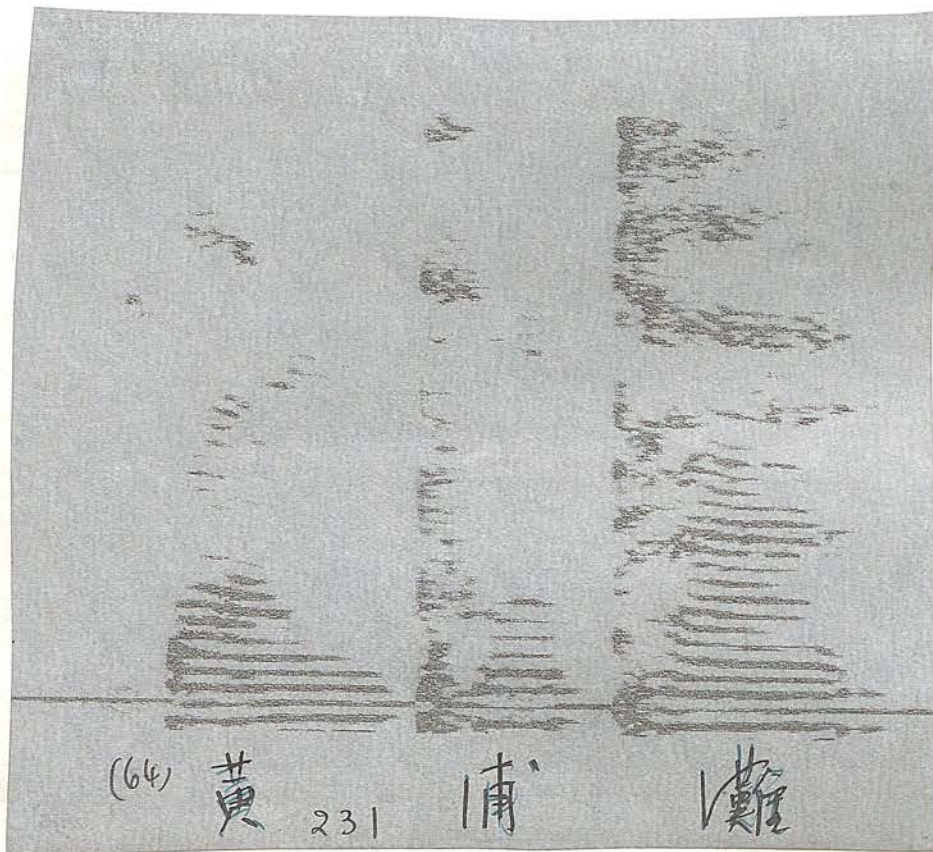
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Fig. 74

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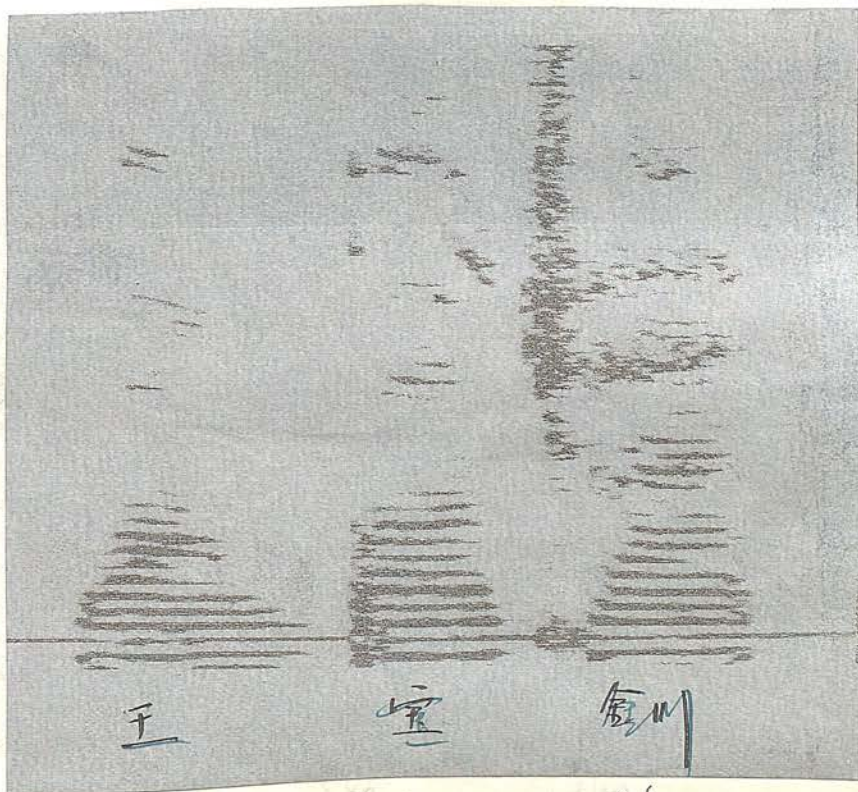
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fig. 75



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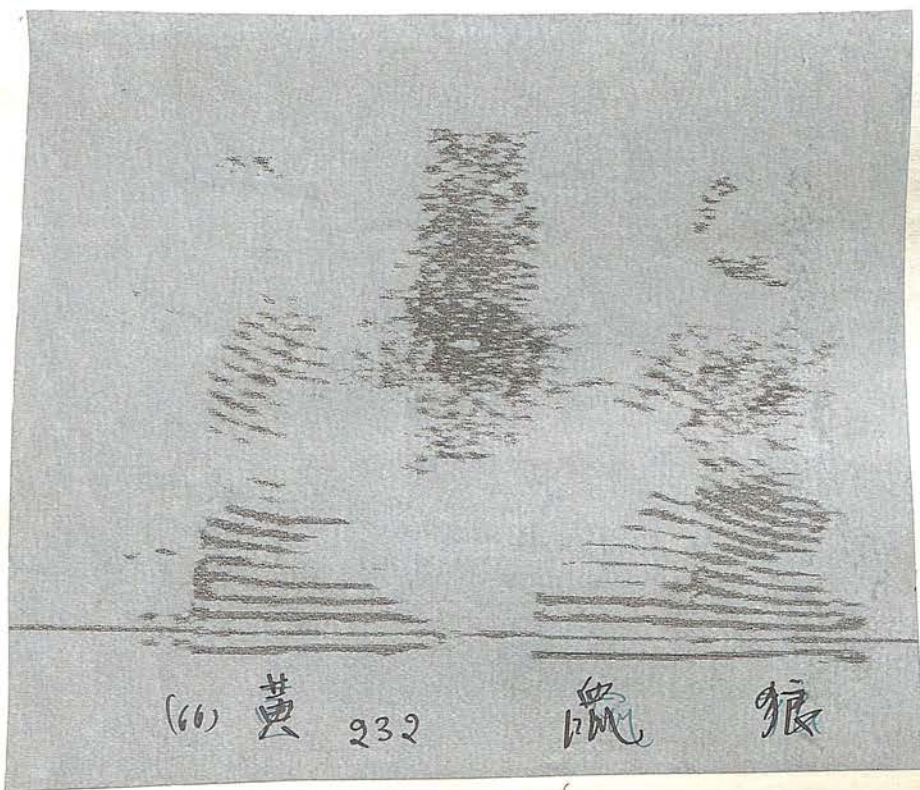
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fig. 76

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(66) 黃 232

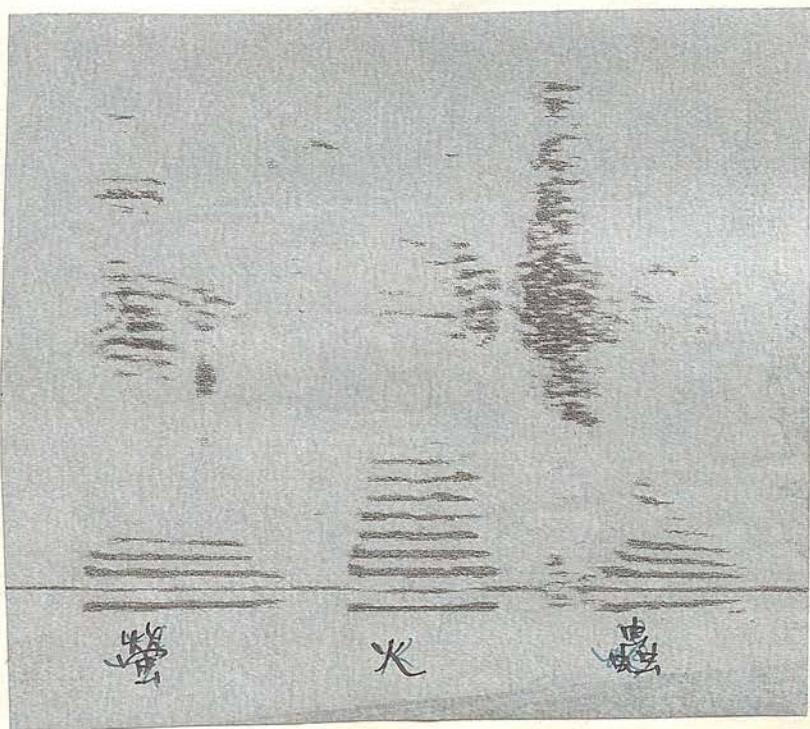
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Fig. 77



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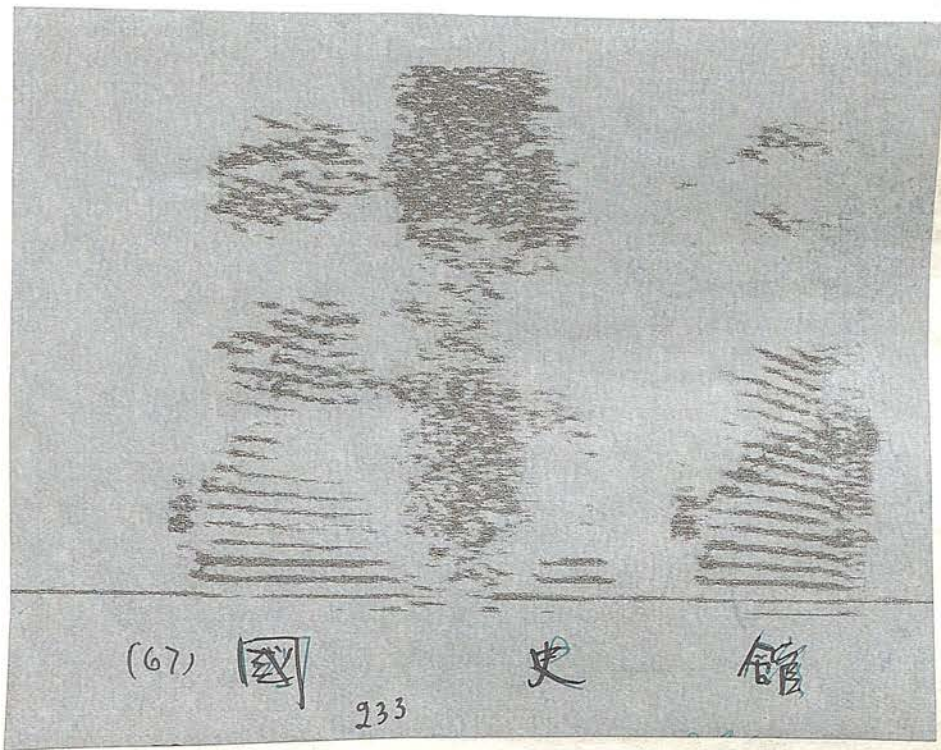
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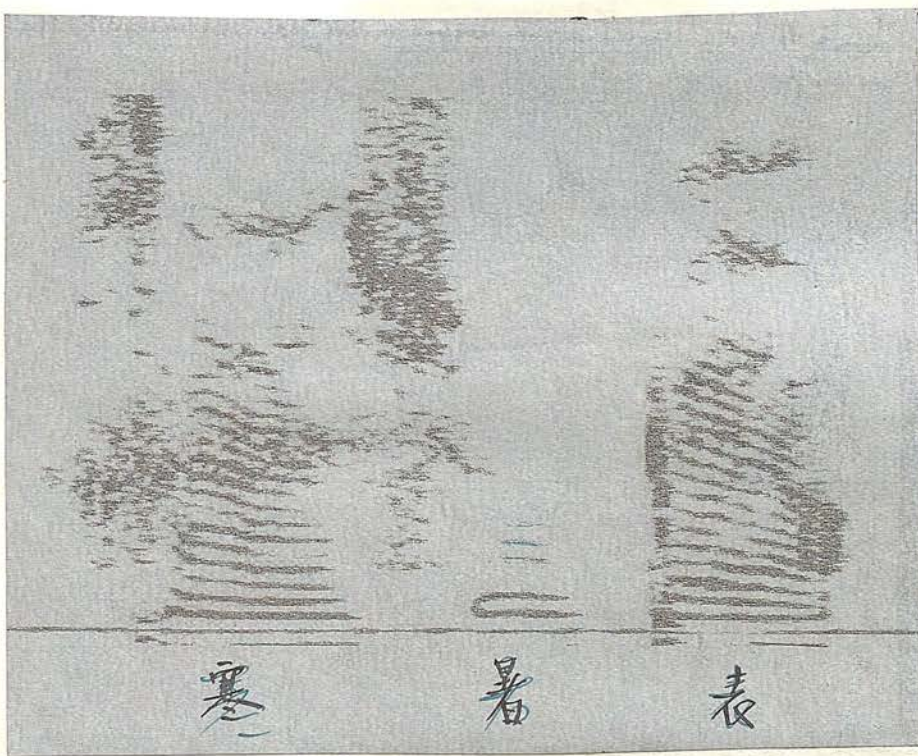
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fig. 78



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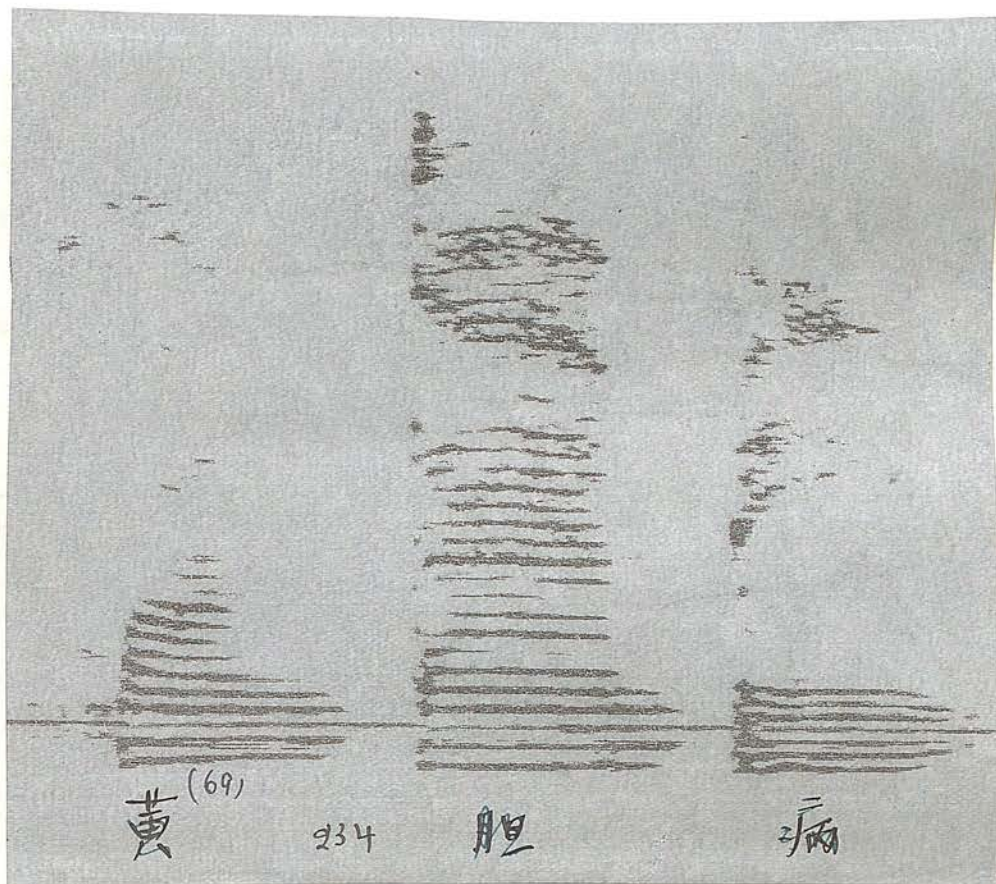
Fig. 79



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Fig. 80





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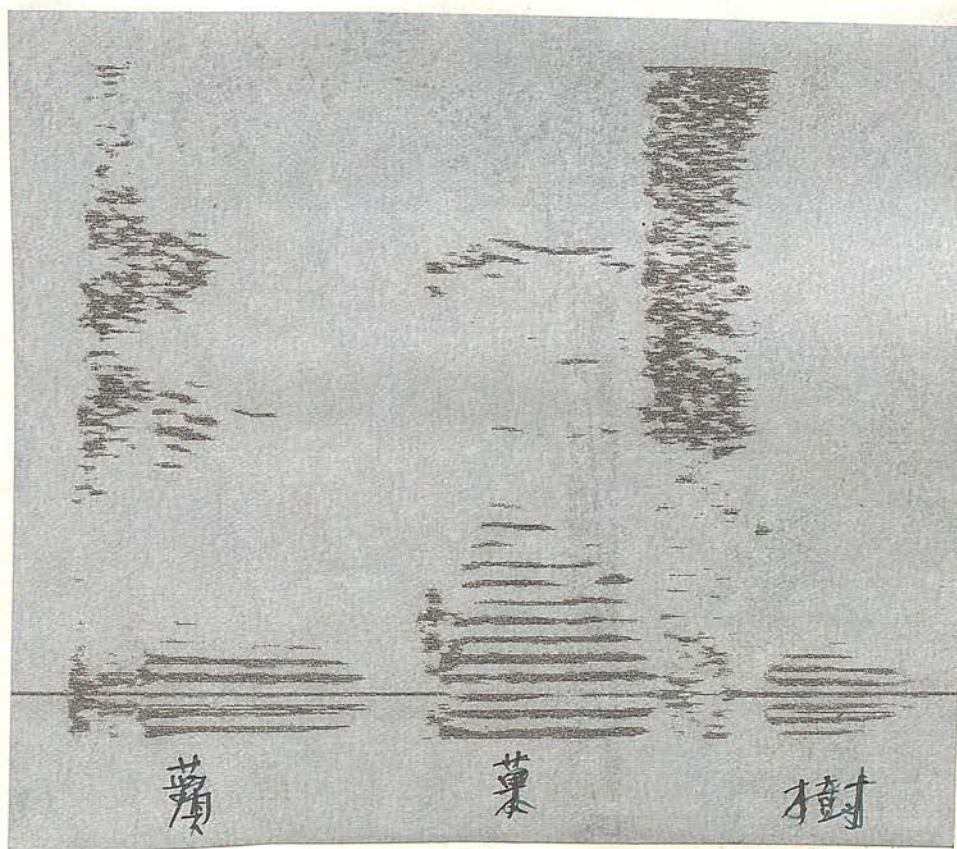
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Fig. 81

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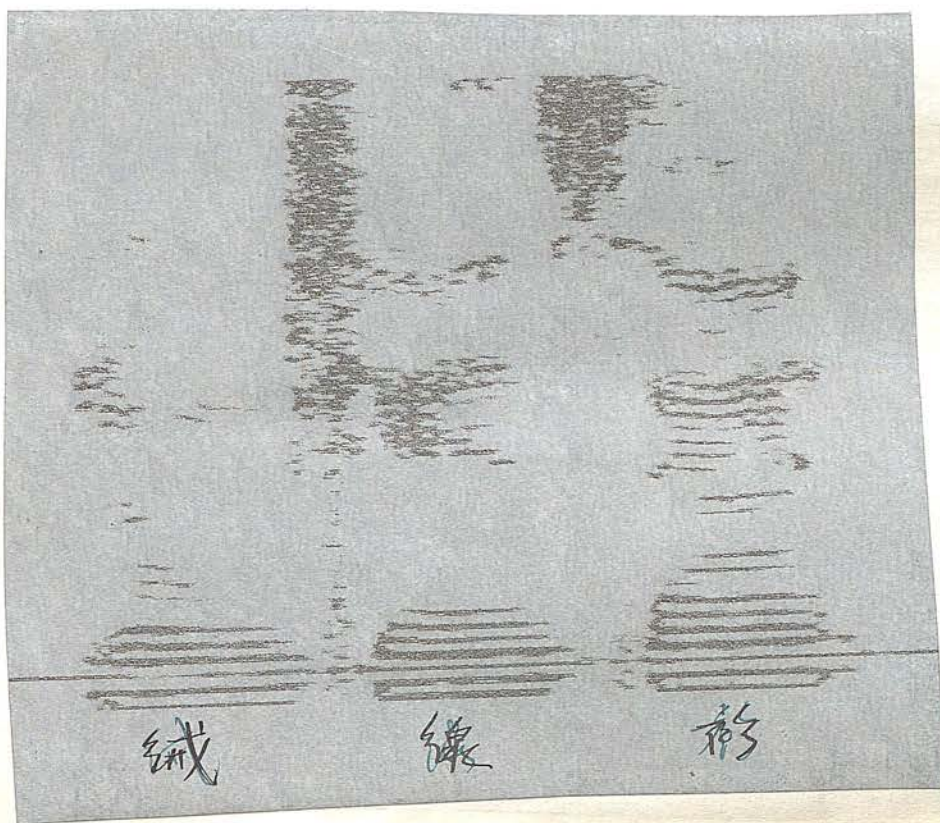
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Fig. 82

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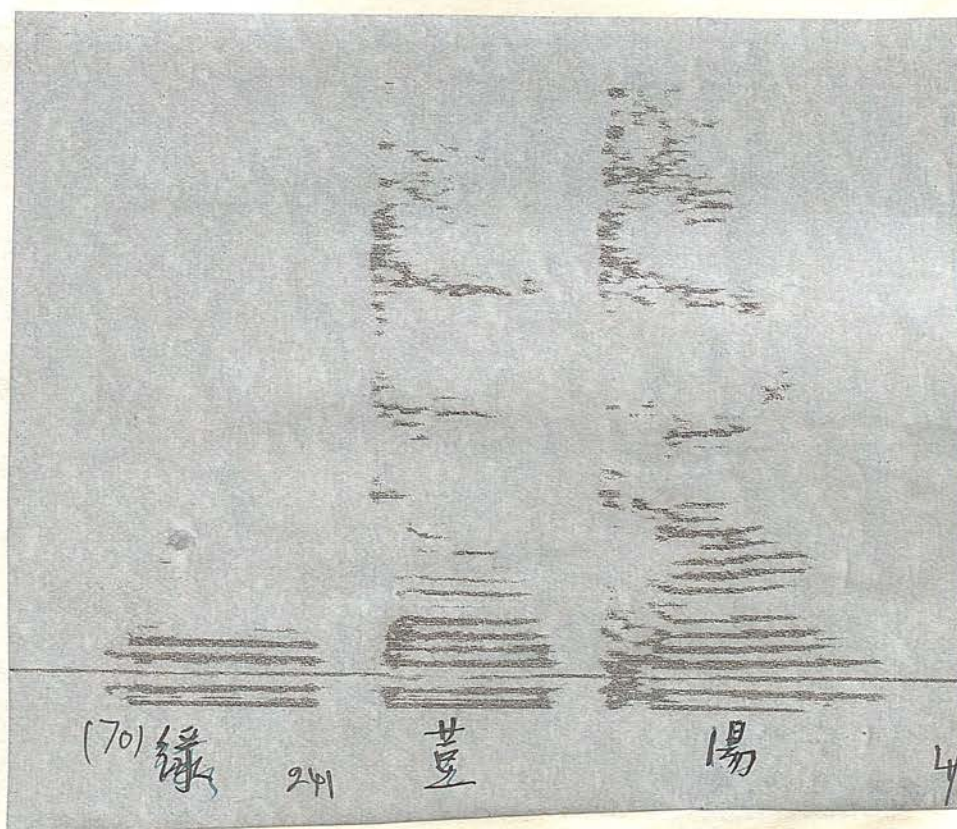
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Fig. 83



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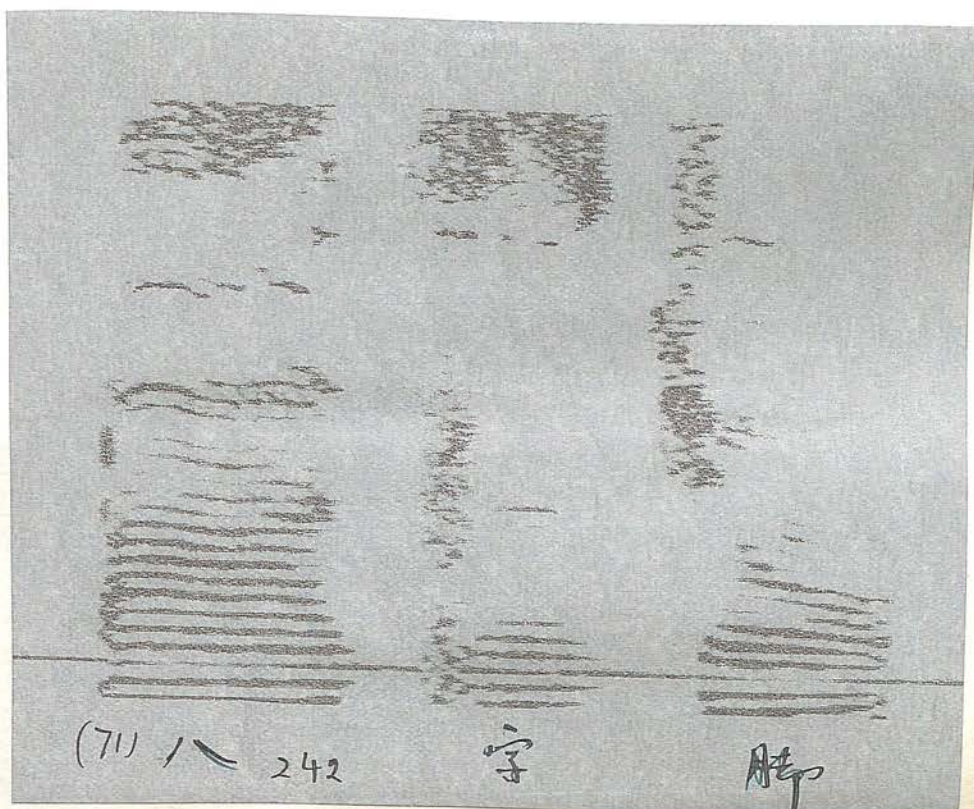
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fig. 84

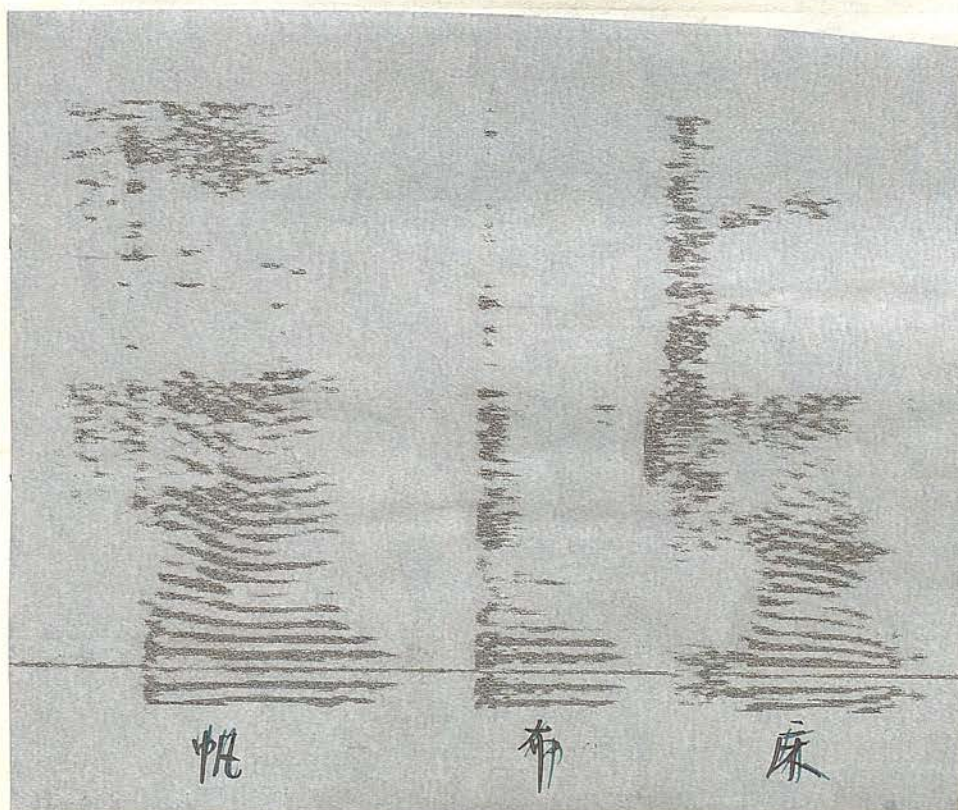


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Fig. 85

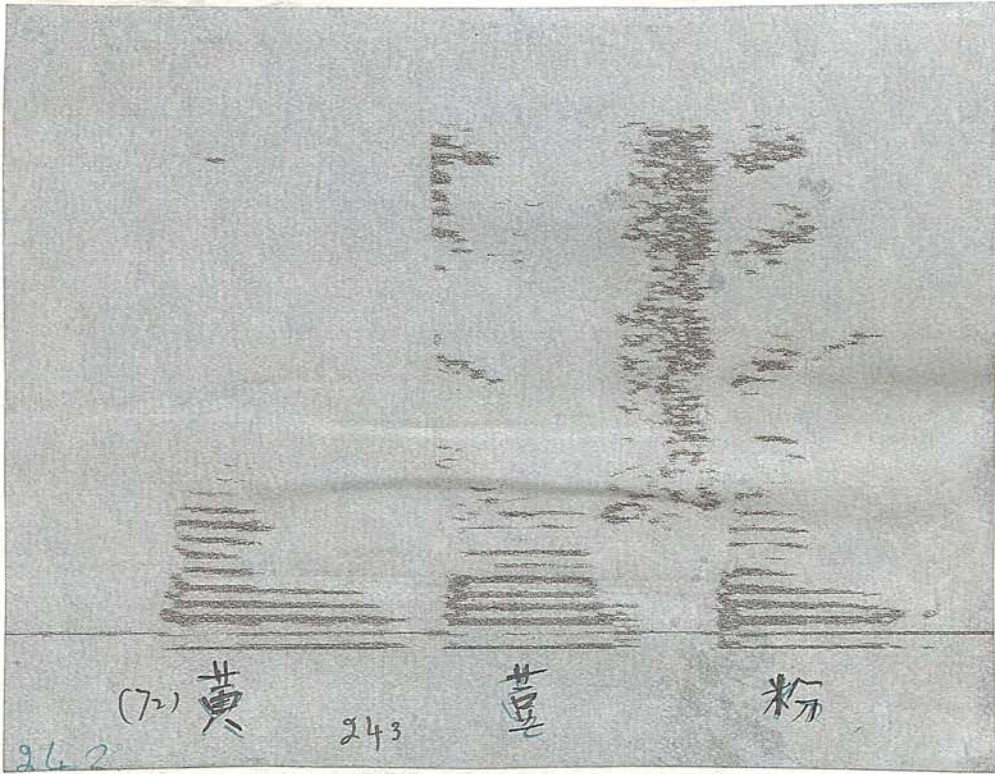


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Fig. 86



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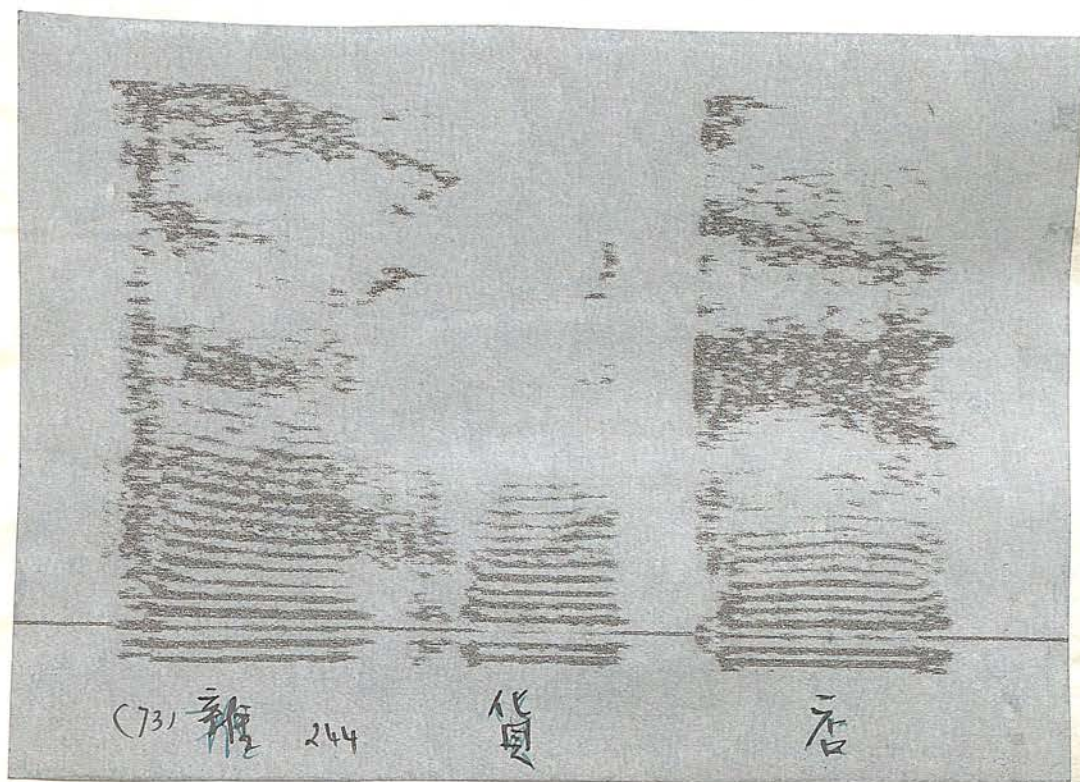
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Fig. 87

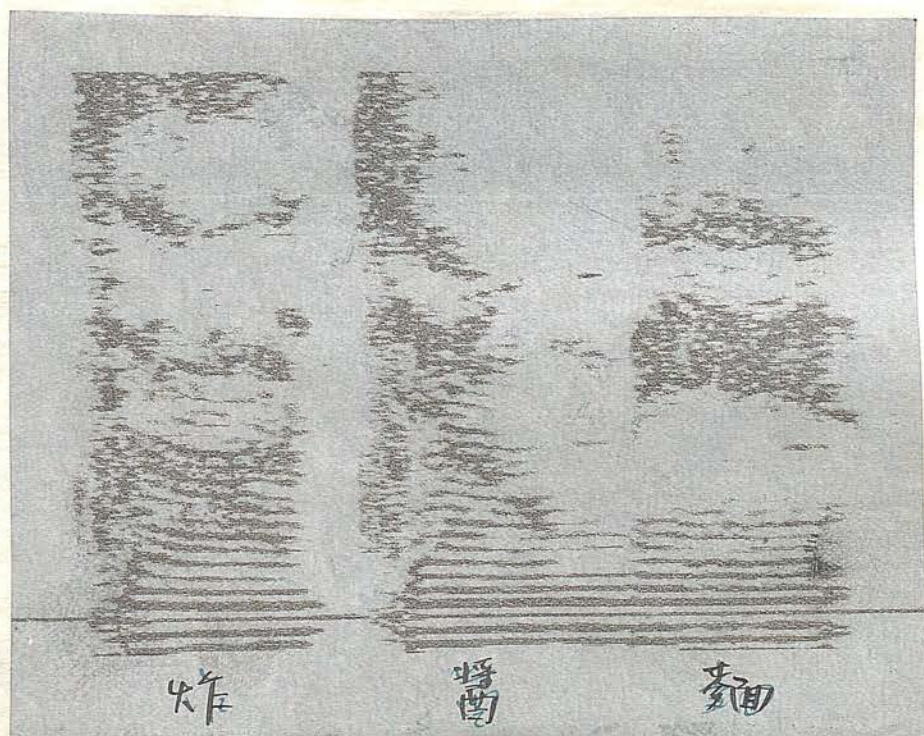


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fig. 88



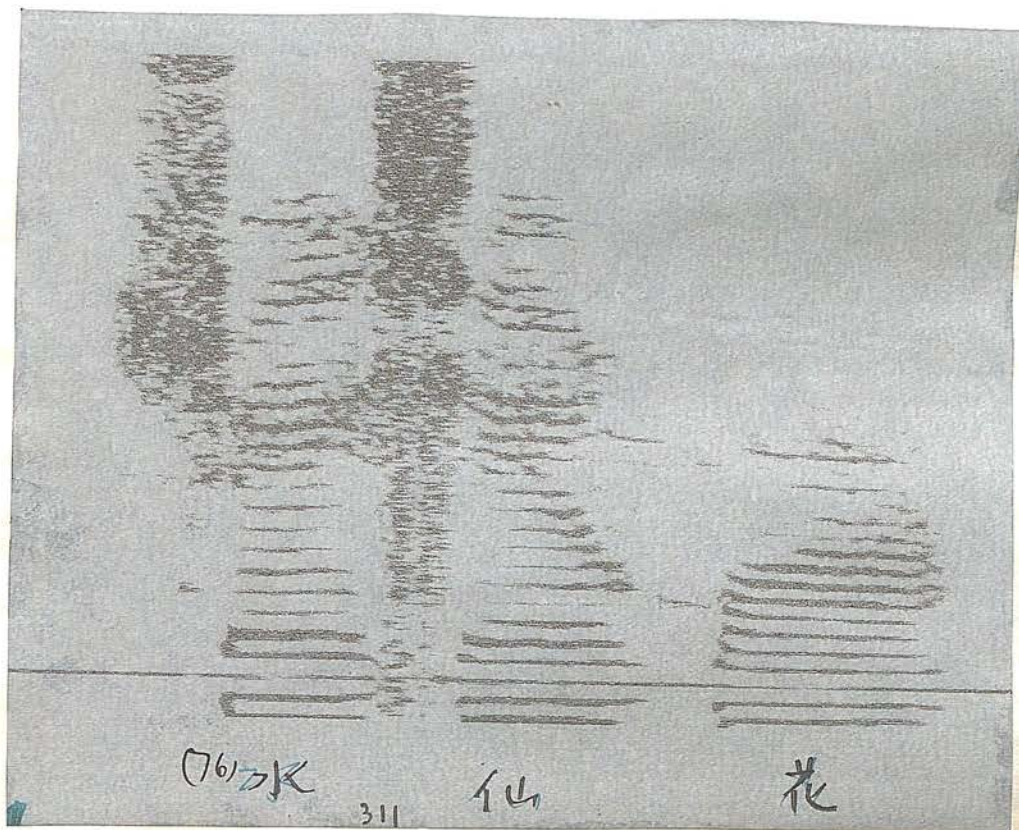
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fig. 89





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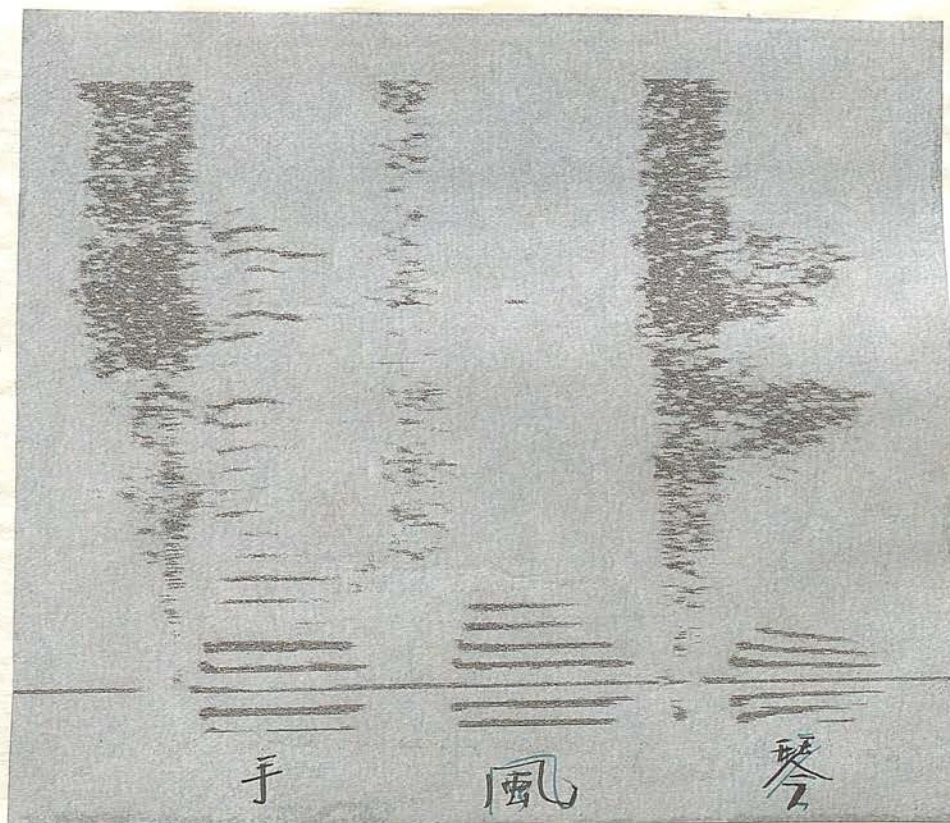
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fig. 90



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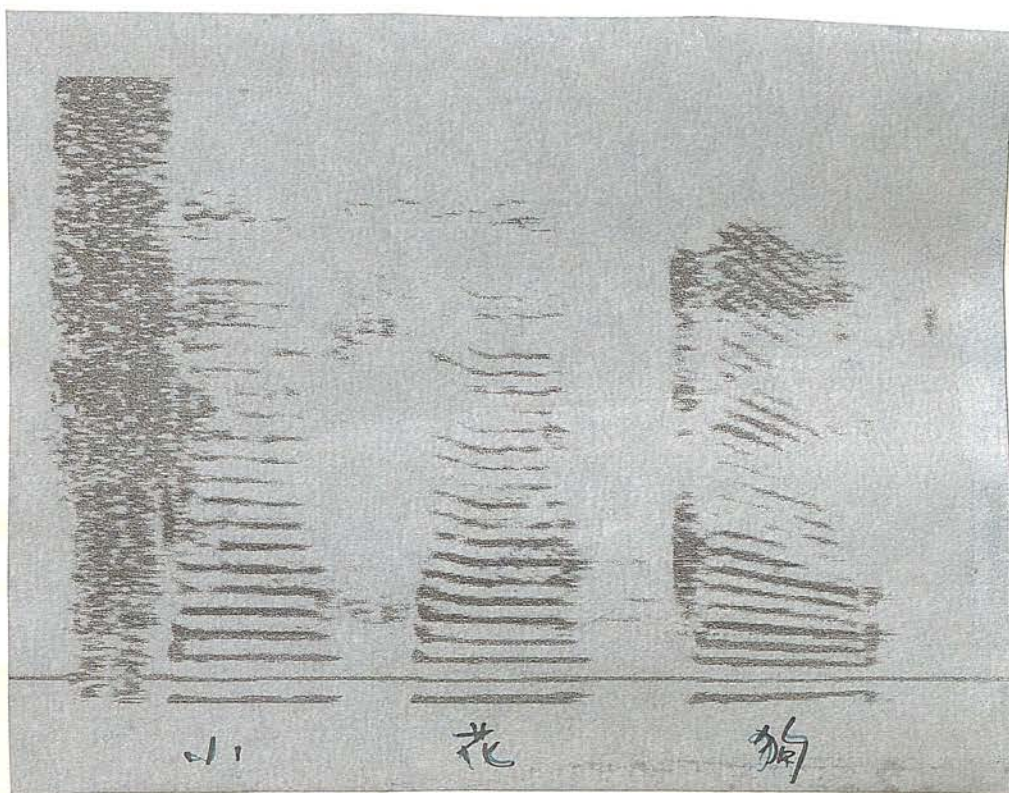
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fig. 91



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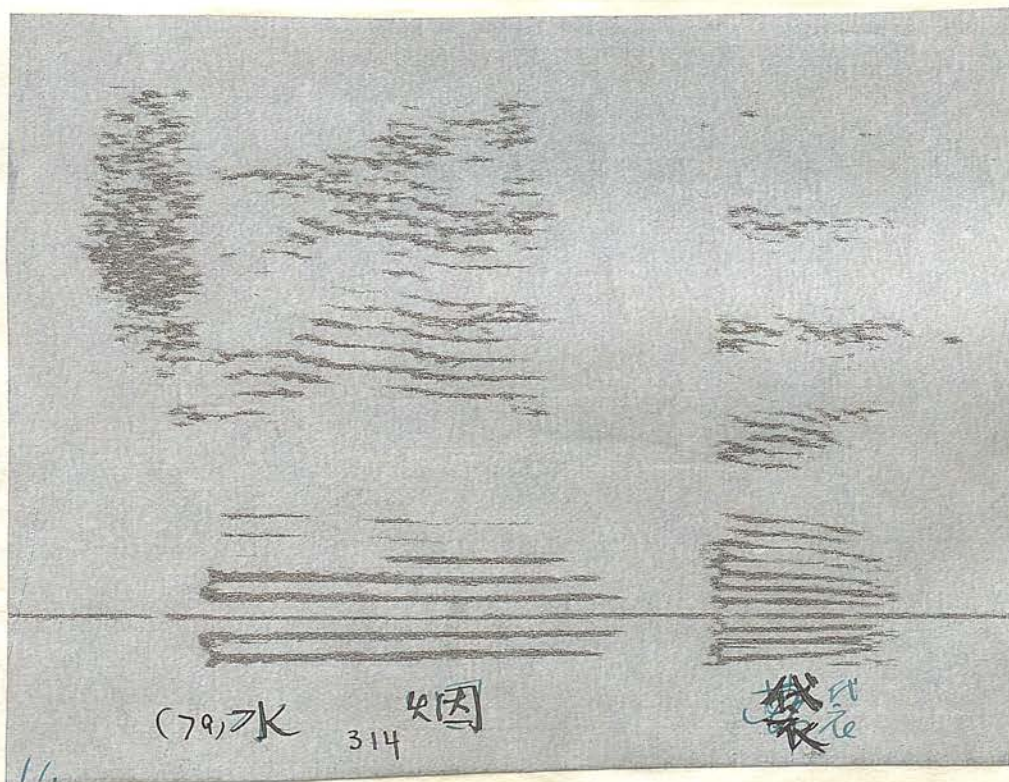
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Fig. 92



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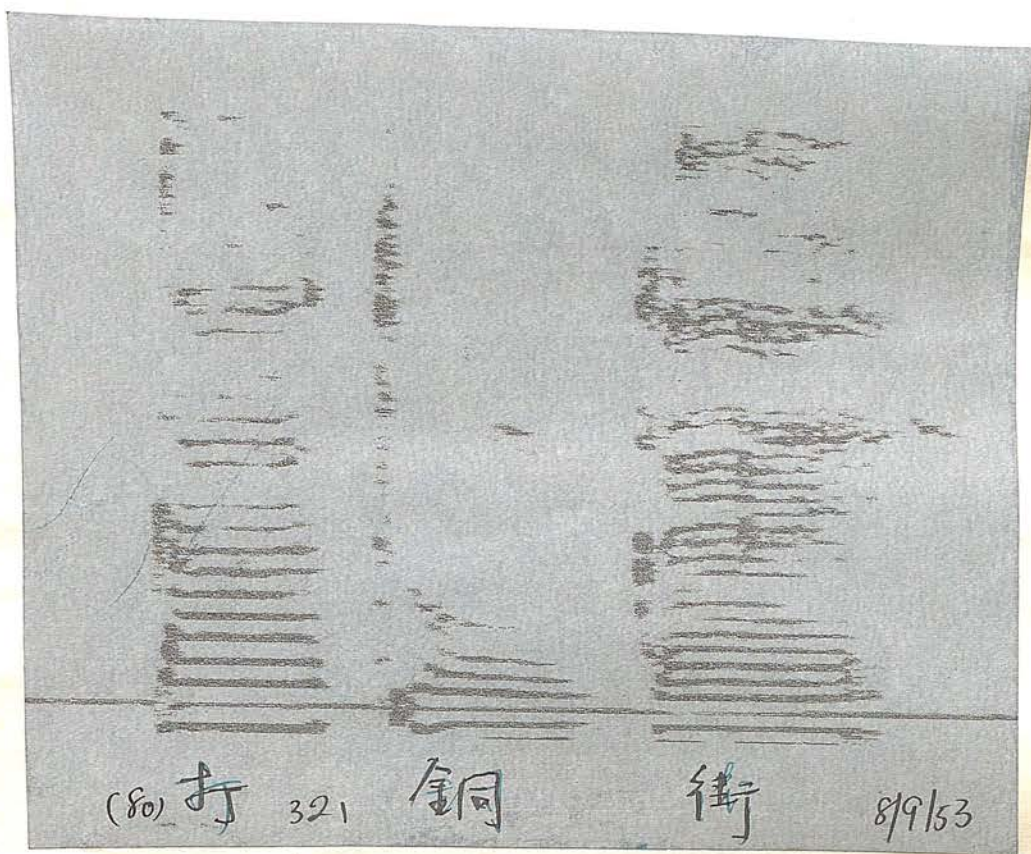
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Fig. 93

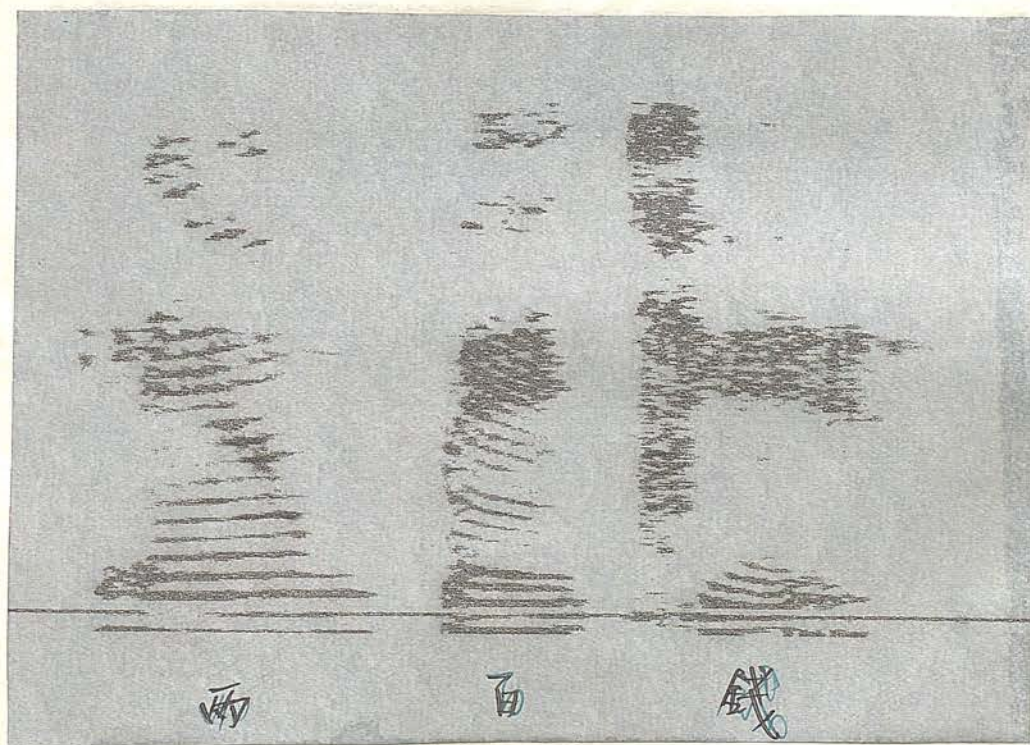


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Fig. 94

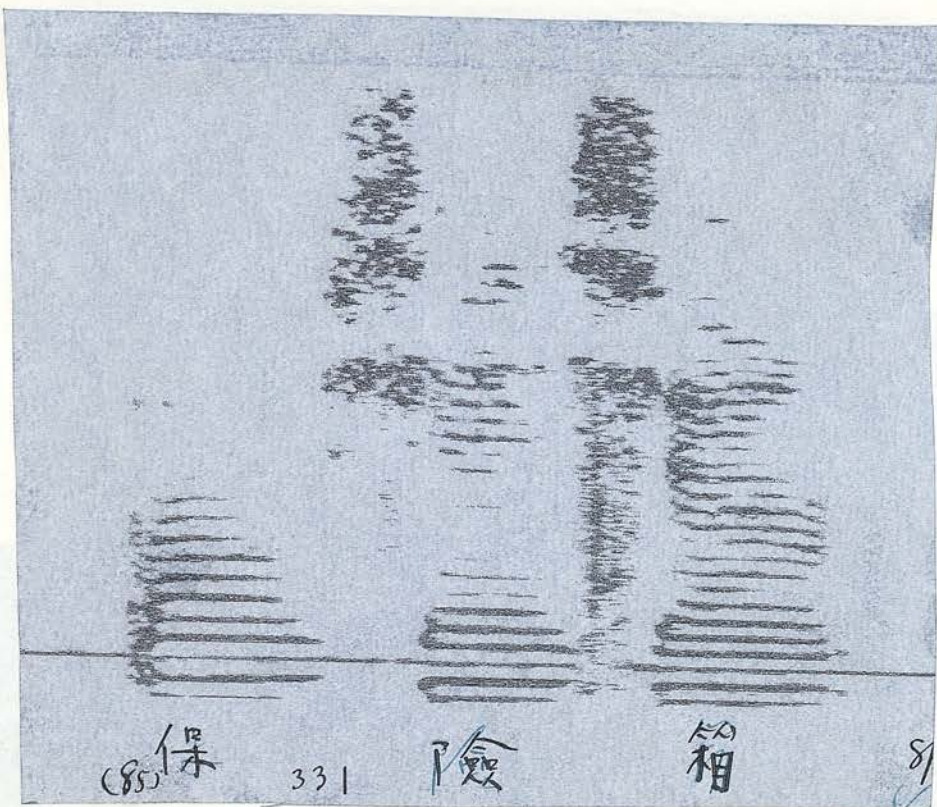


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Fig. 95



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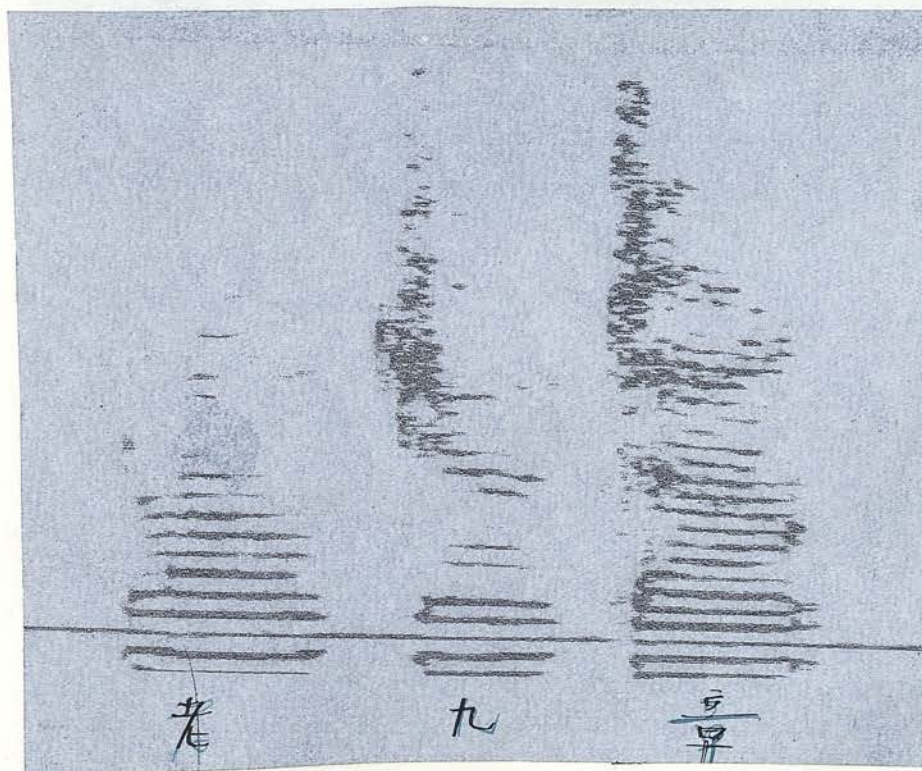
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Fig. 98



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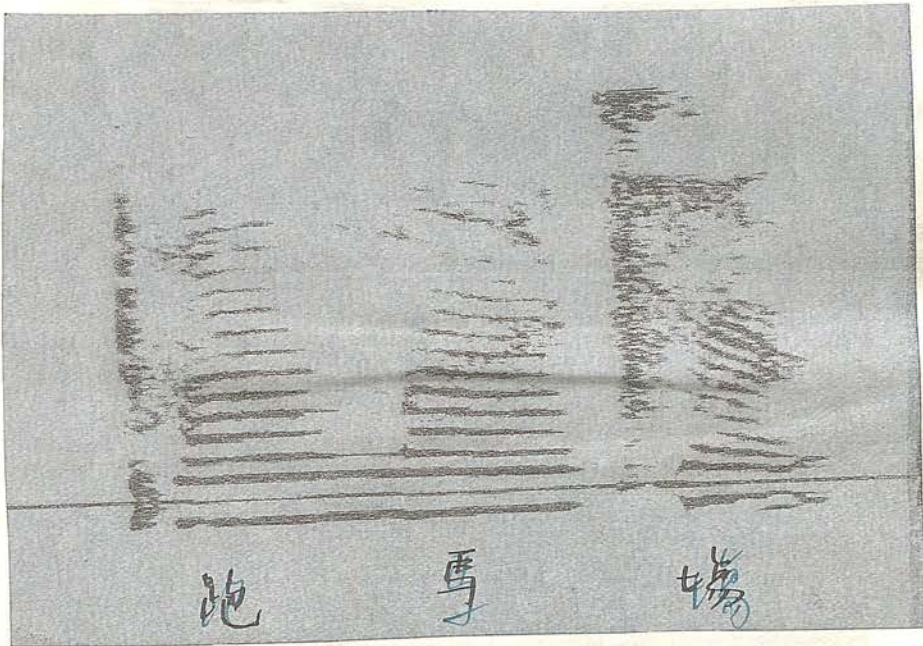
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Fig. 99

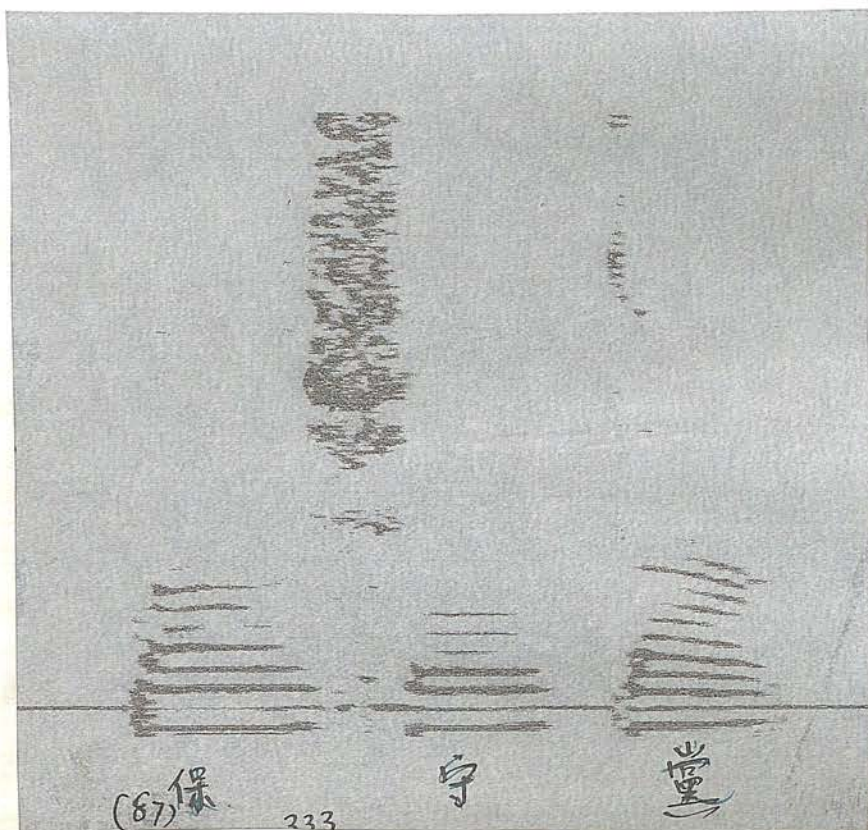


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Fig 100



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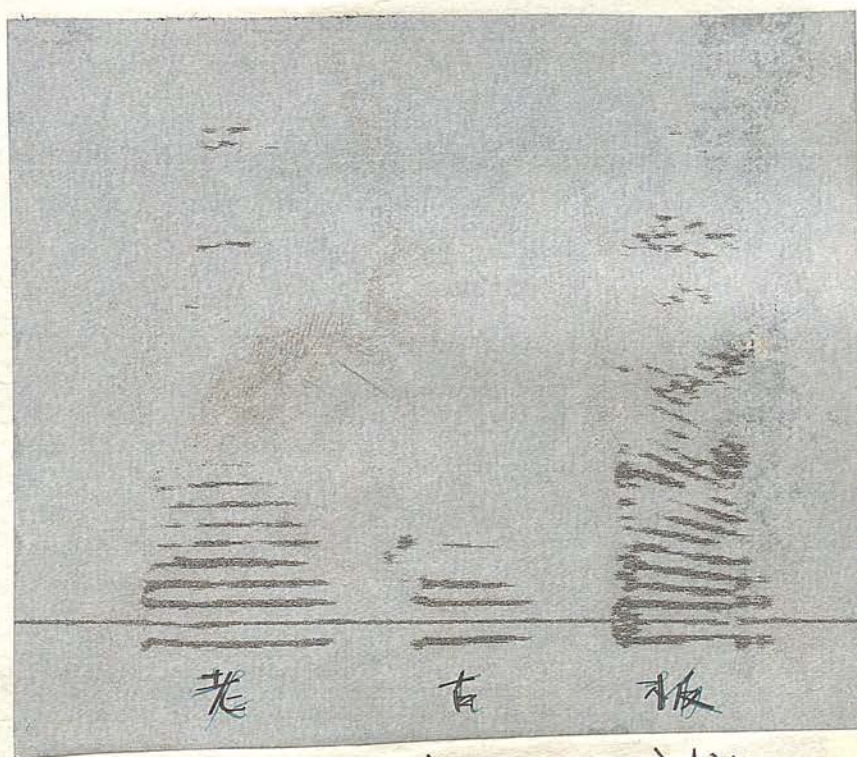
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Fig. 101



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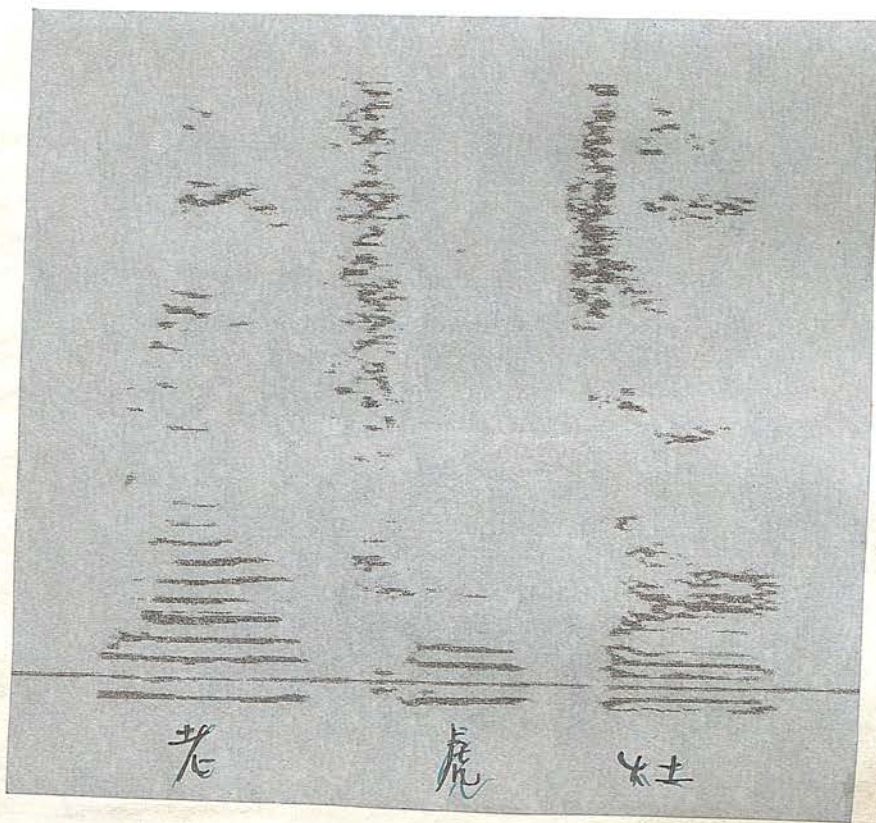
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Fig. 102





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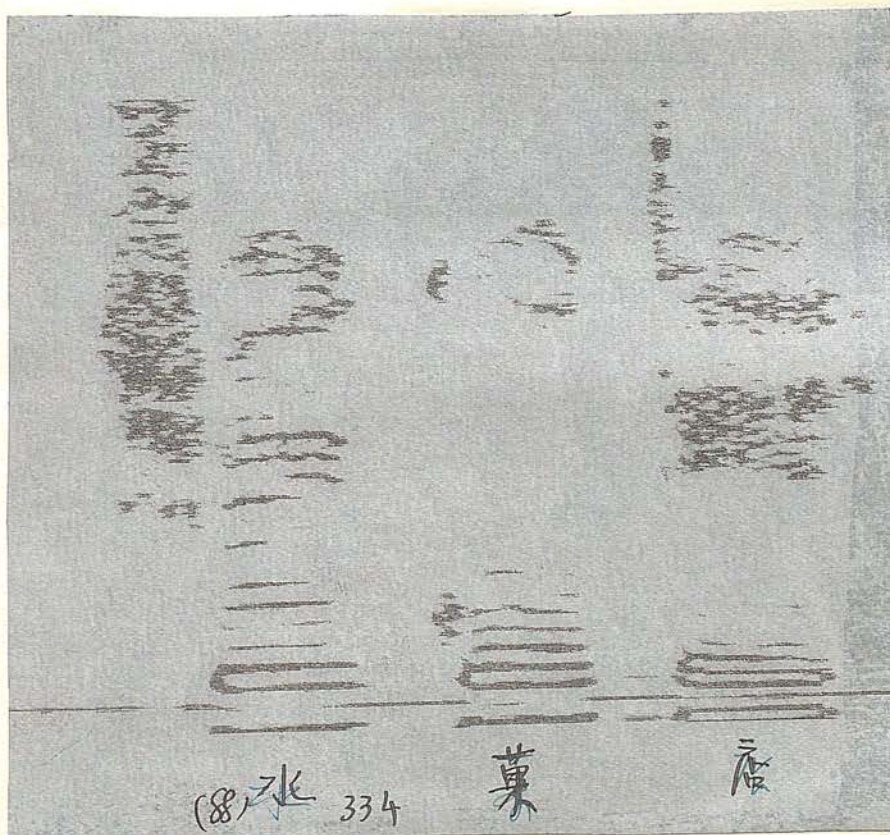
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fig. 103



(88) 水 334

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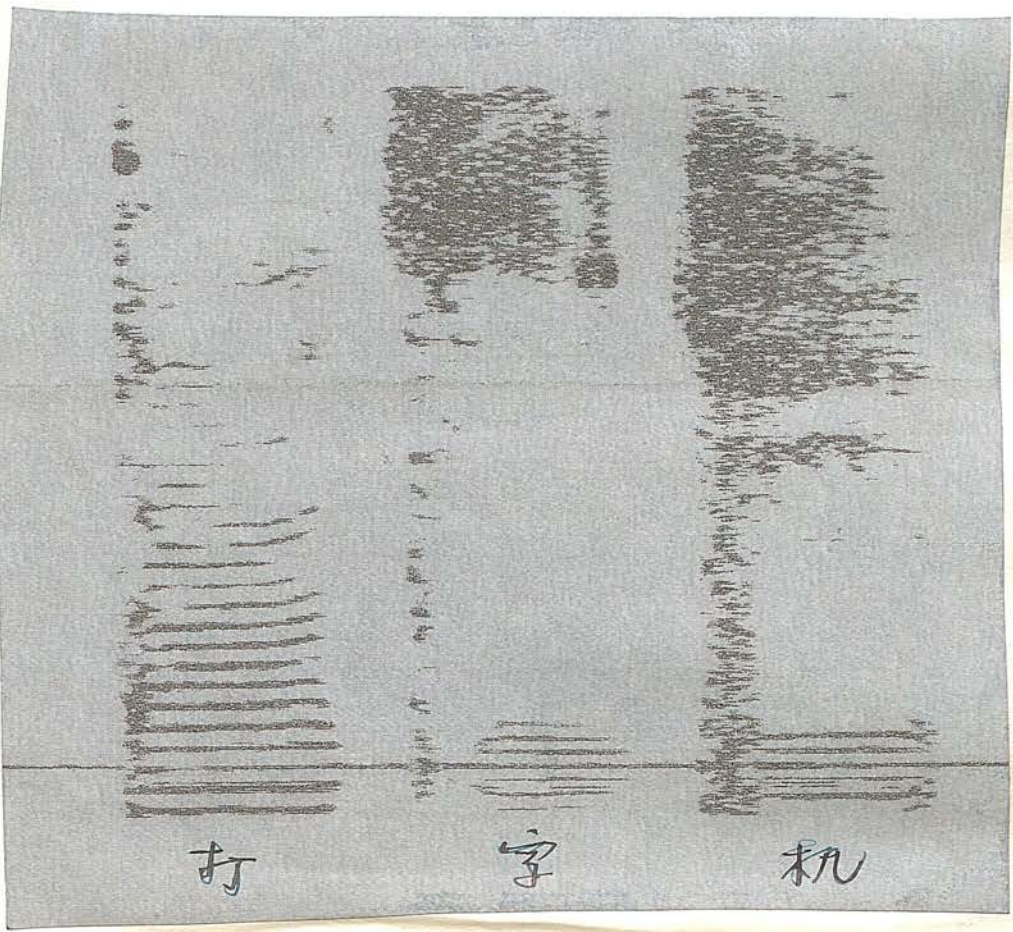
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Fig. 104





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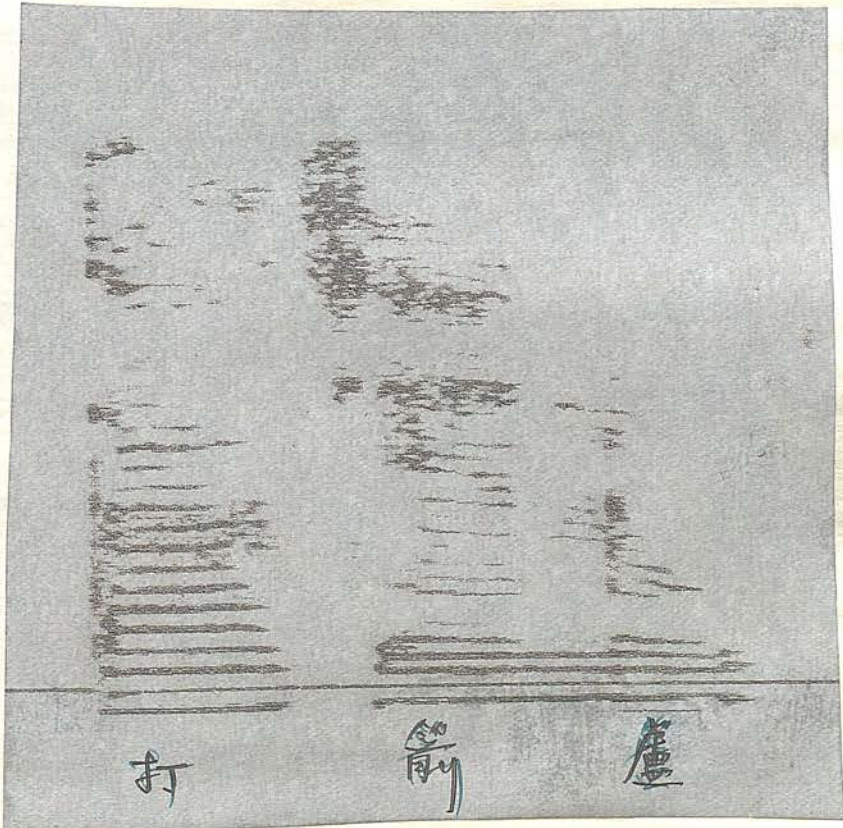
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fig. 105



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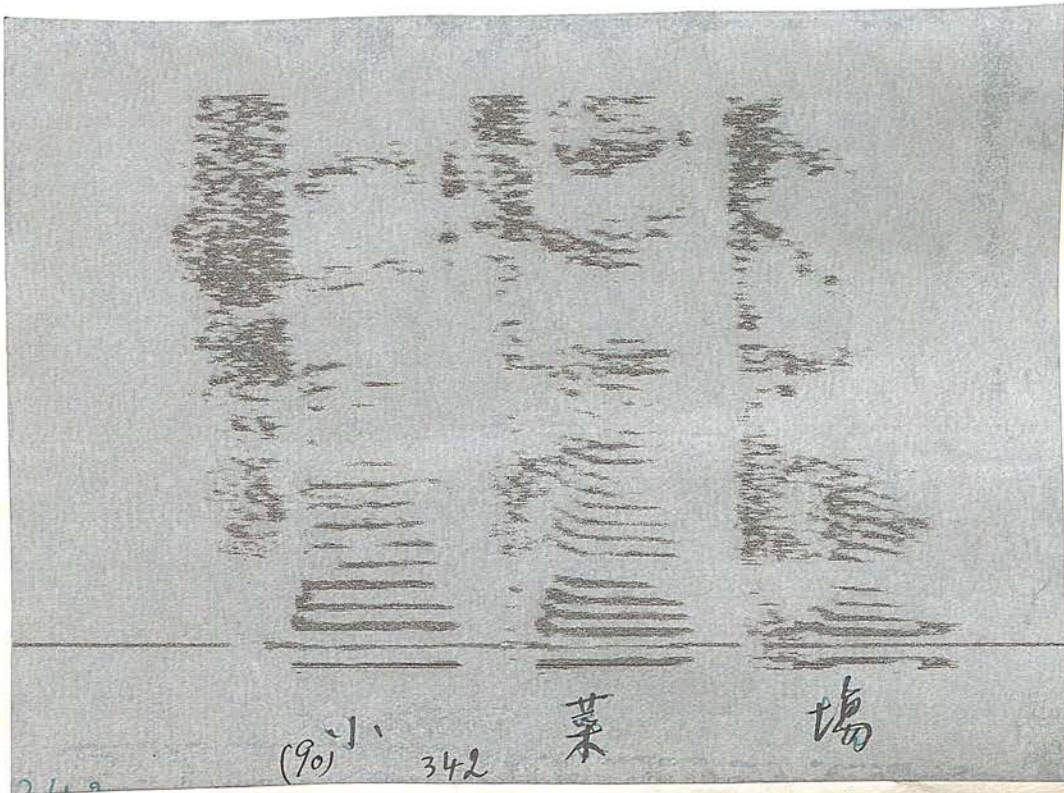
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fig. 106

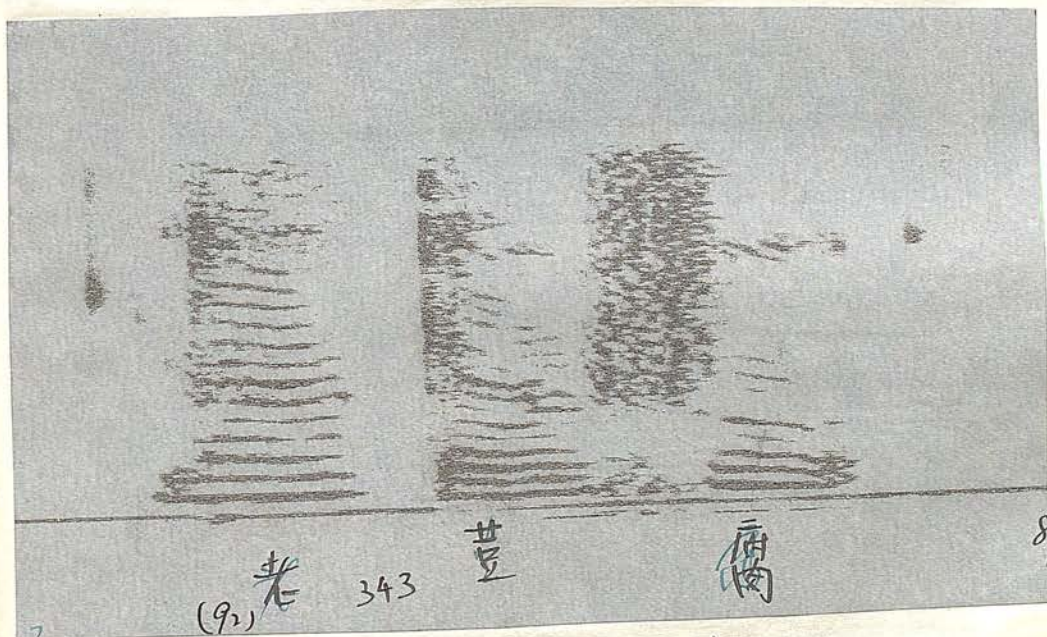




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Fig. 107



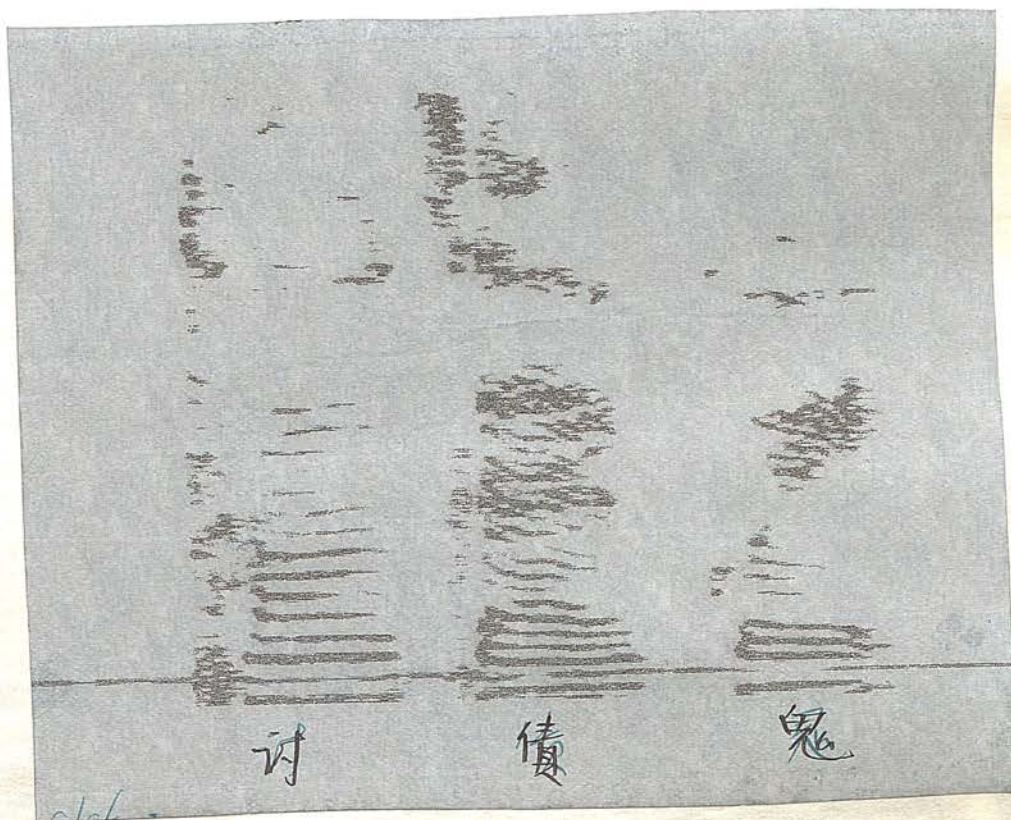
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Fig. 108

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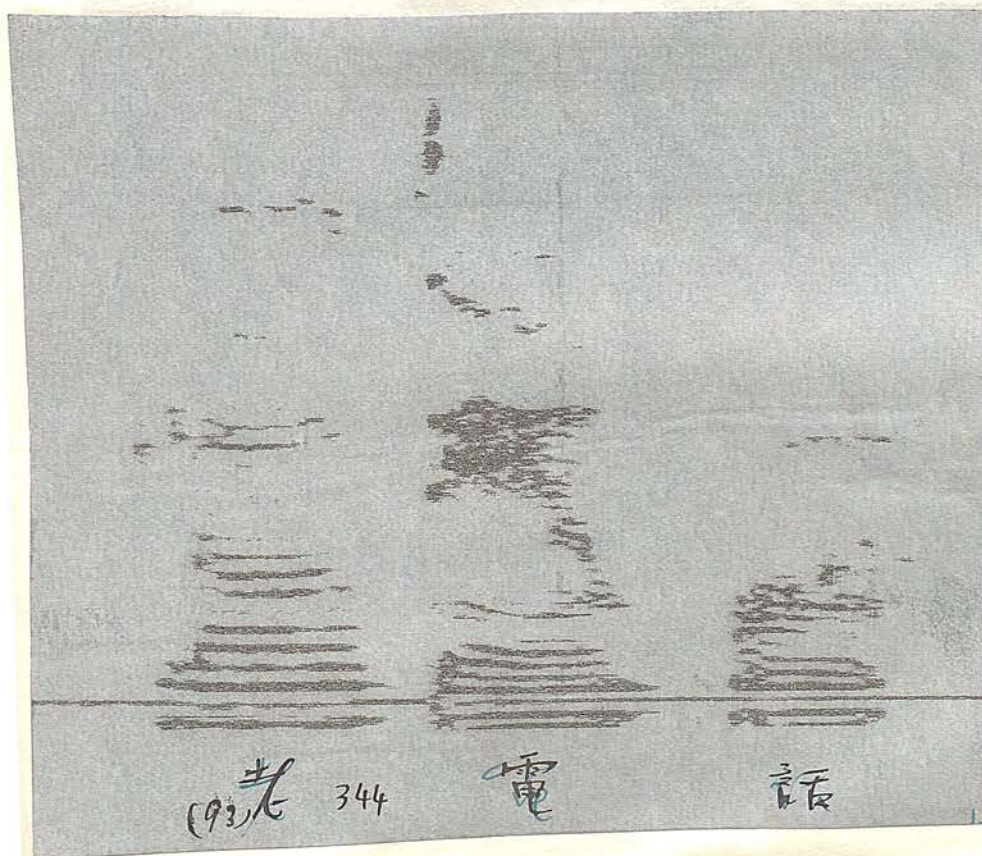
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Fig. 109



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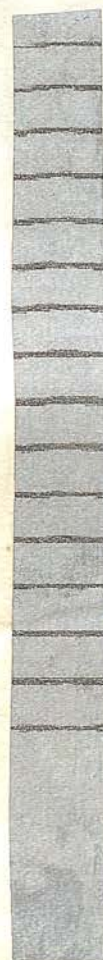
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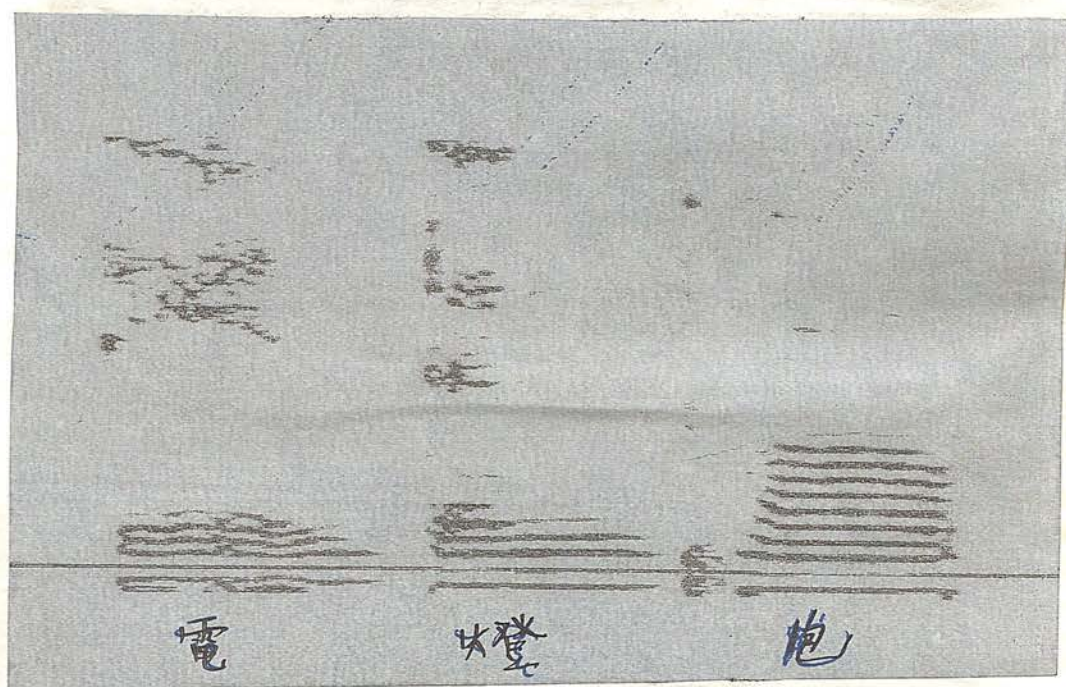
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Fig. 110



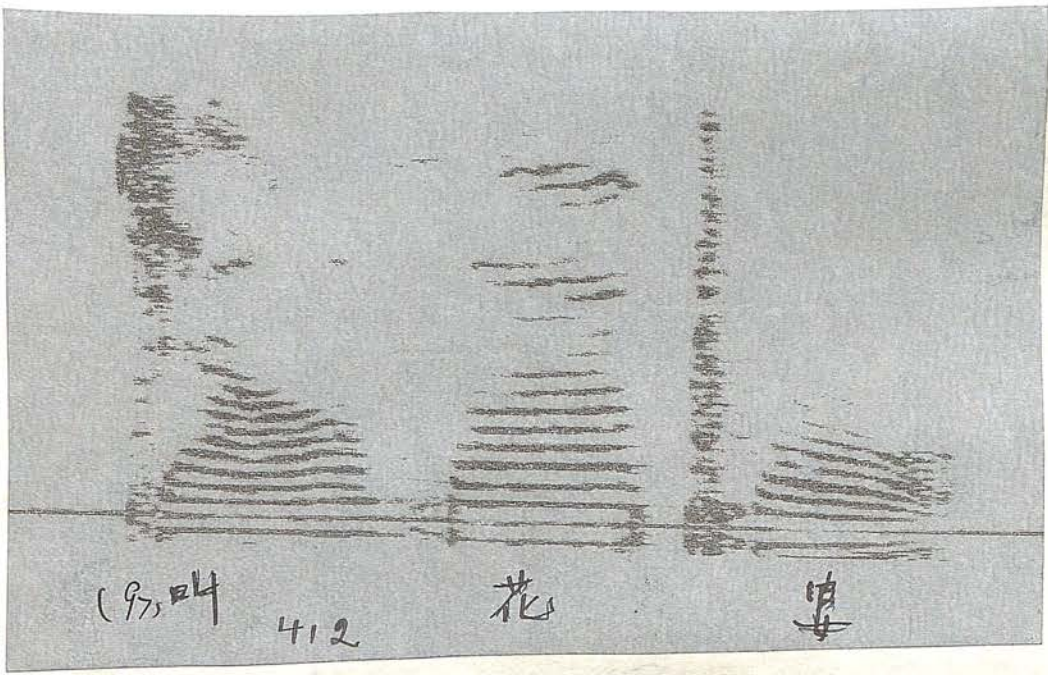


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Fig. III



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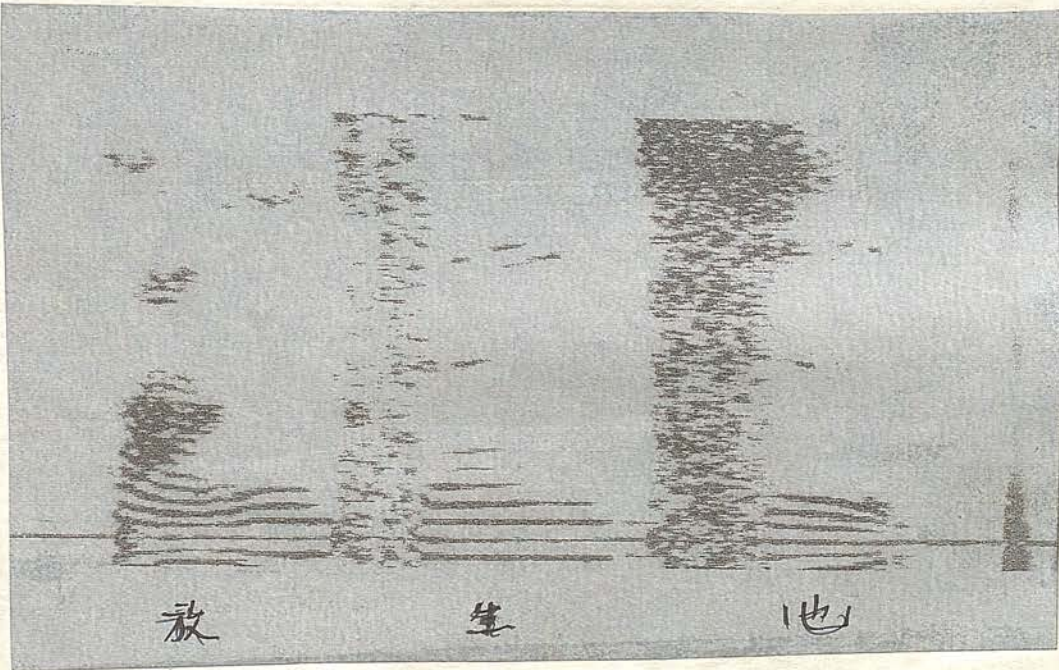
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Fig. 112



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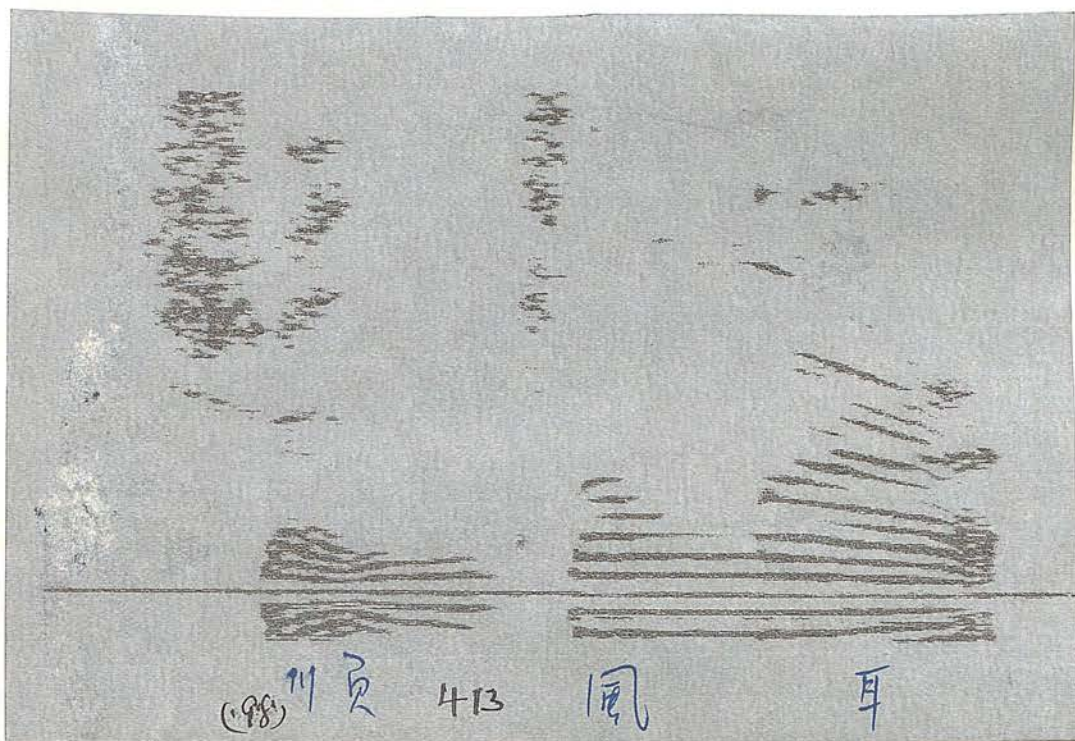
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Fig. 113

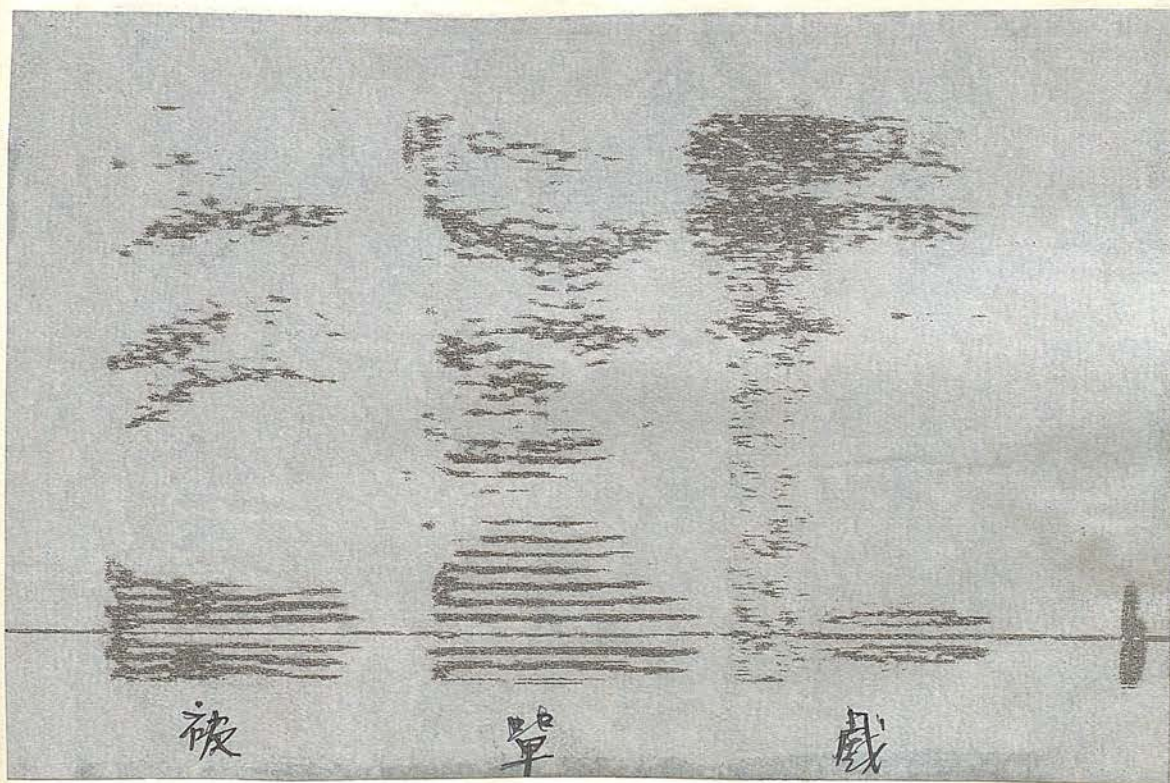




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Fig. 114



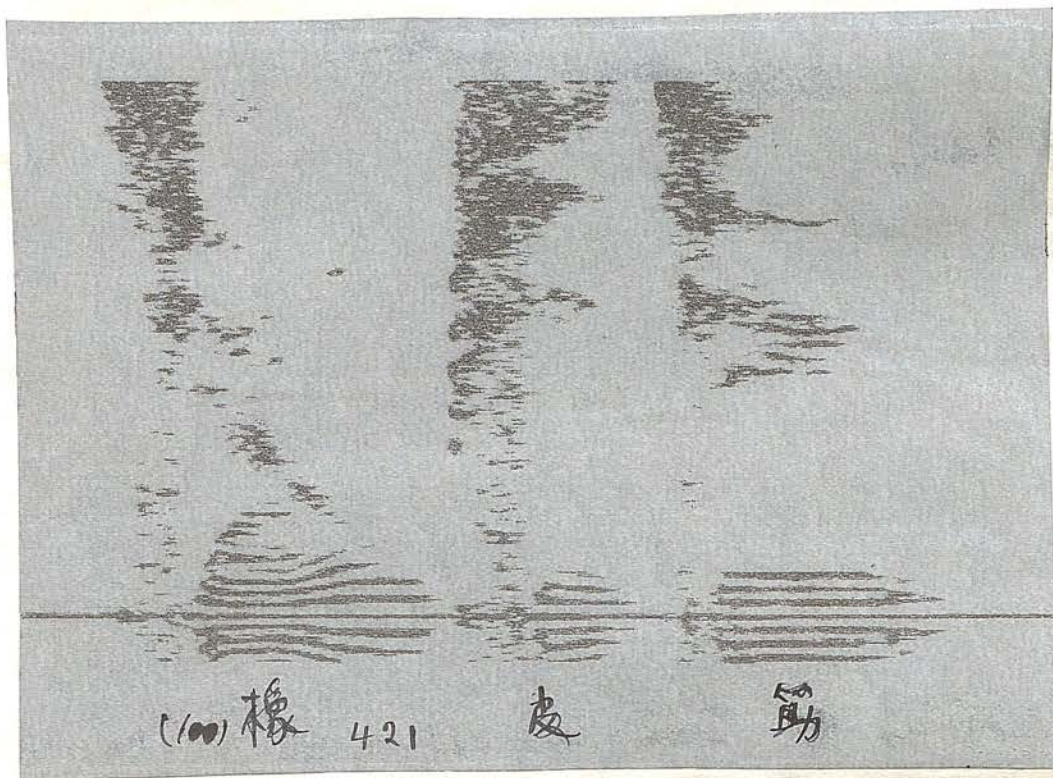
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Fig. 115



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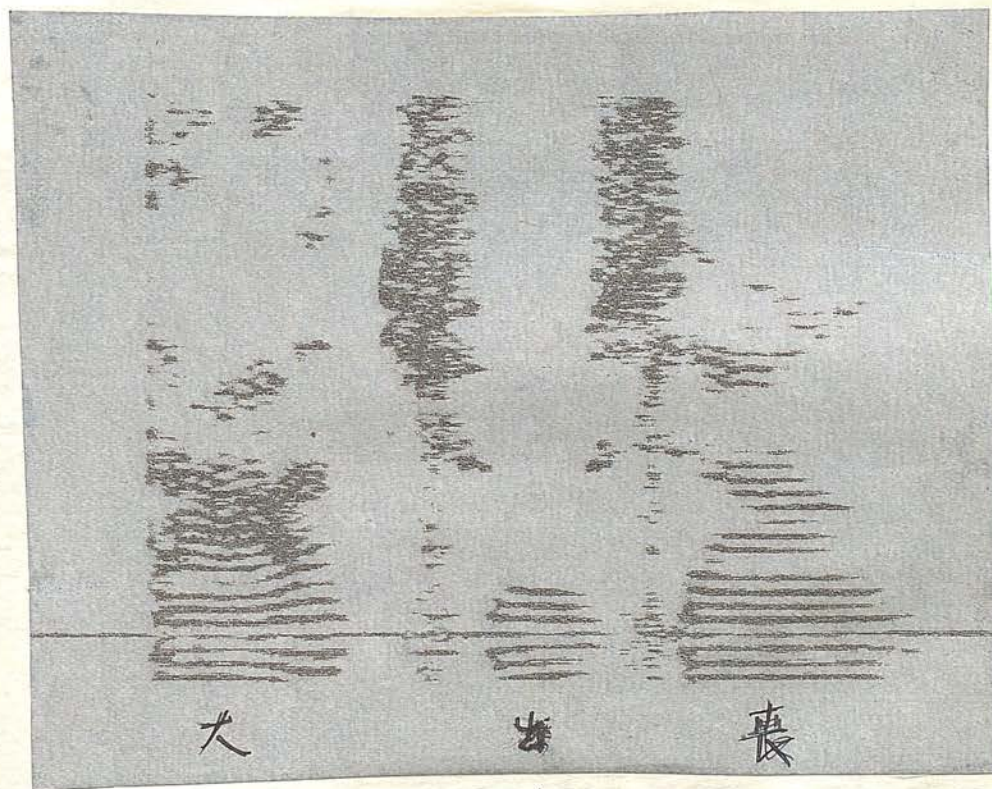
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Fig. 116



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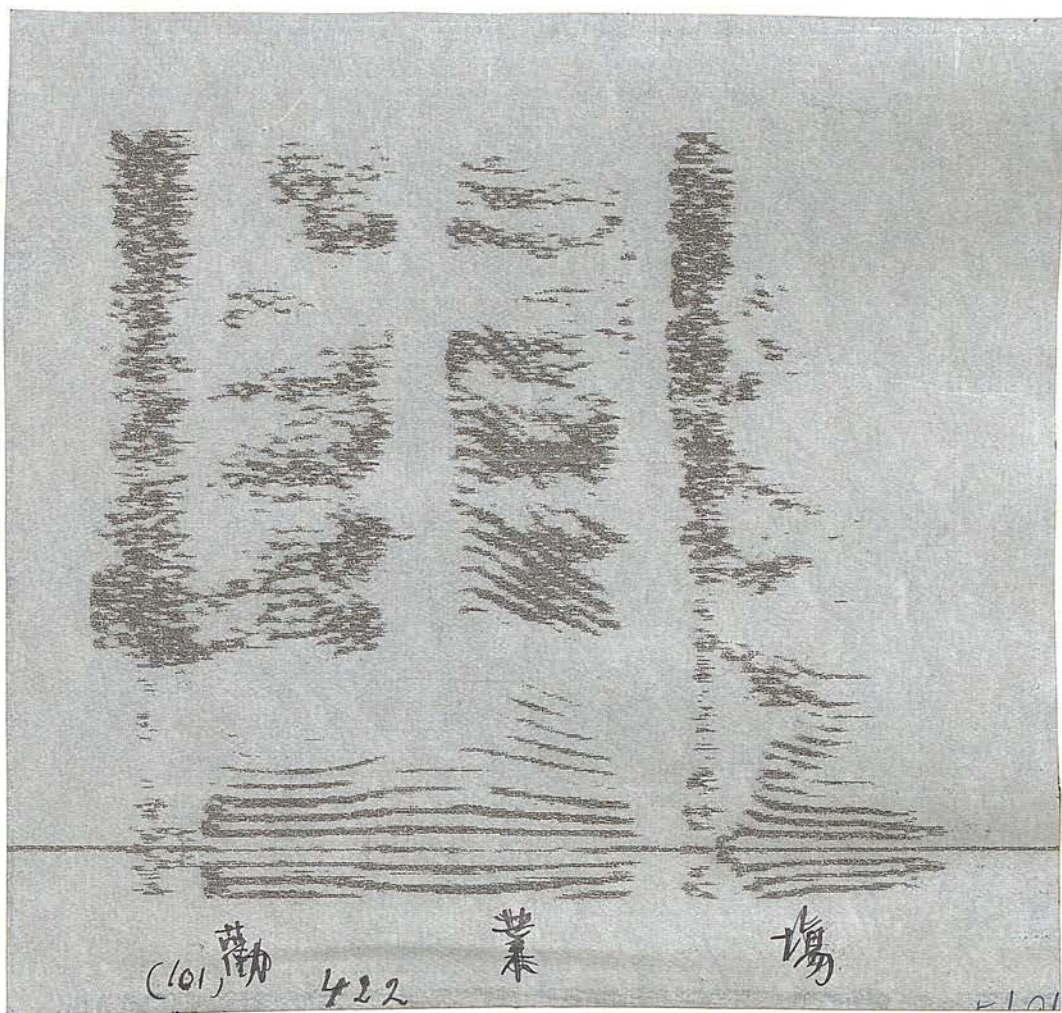
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Fig. 117



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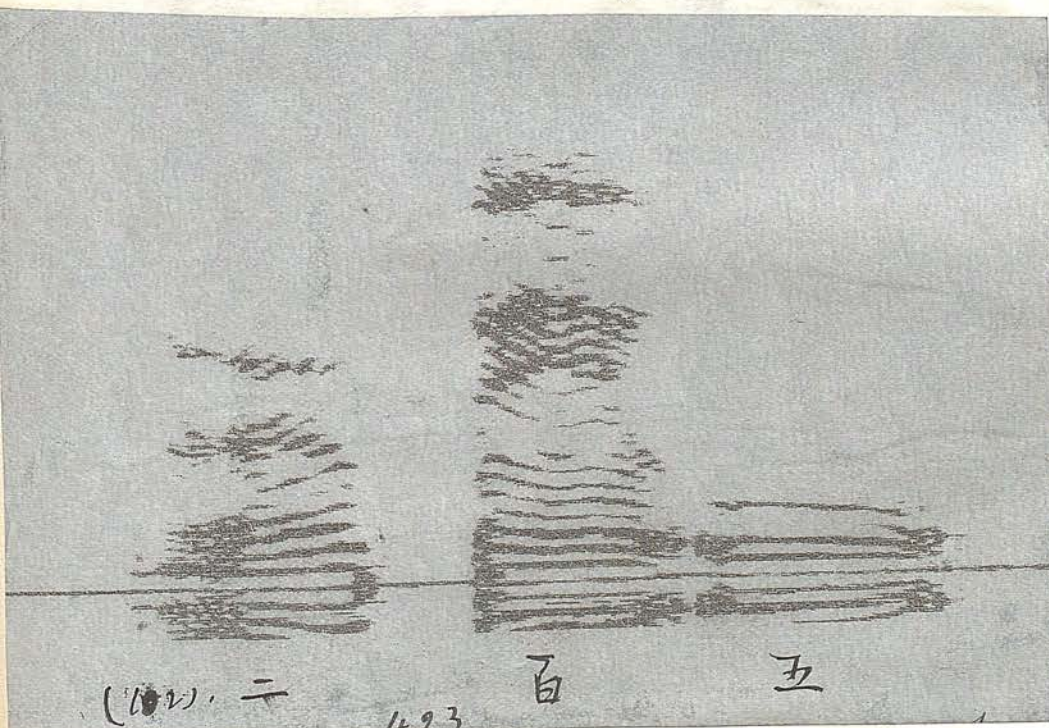
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Fig. 118



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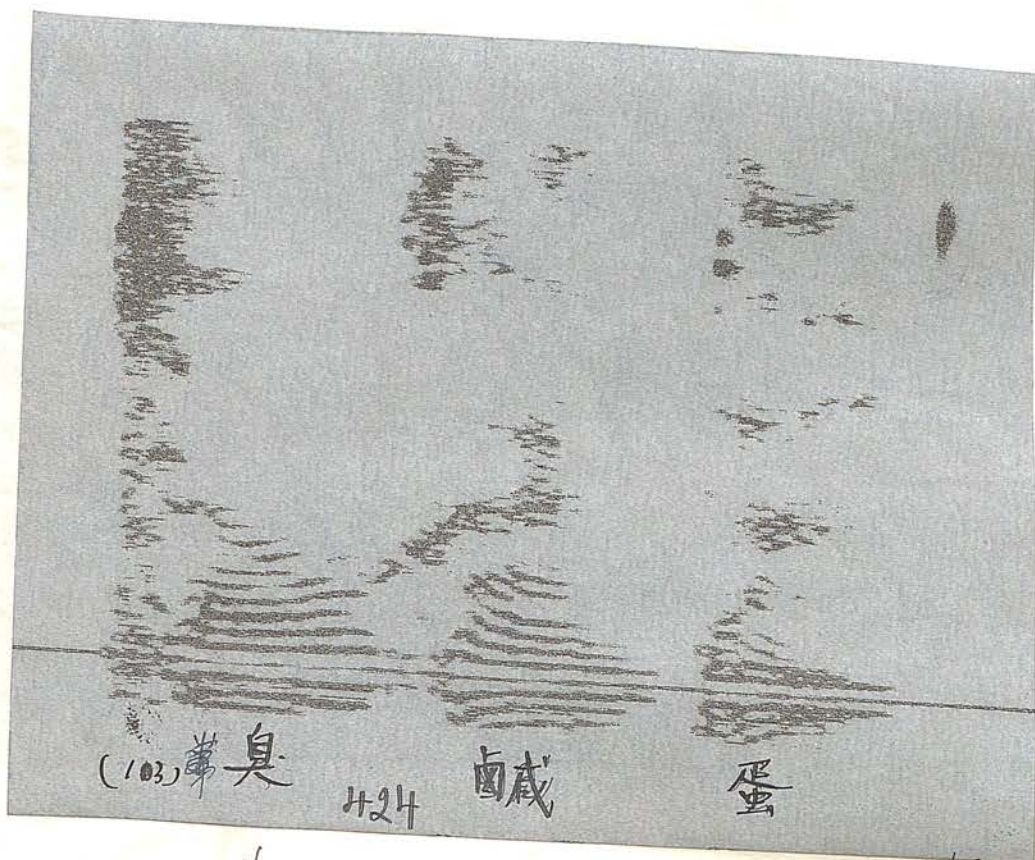
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Fig. 119

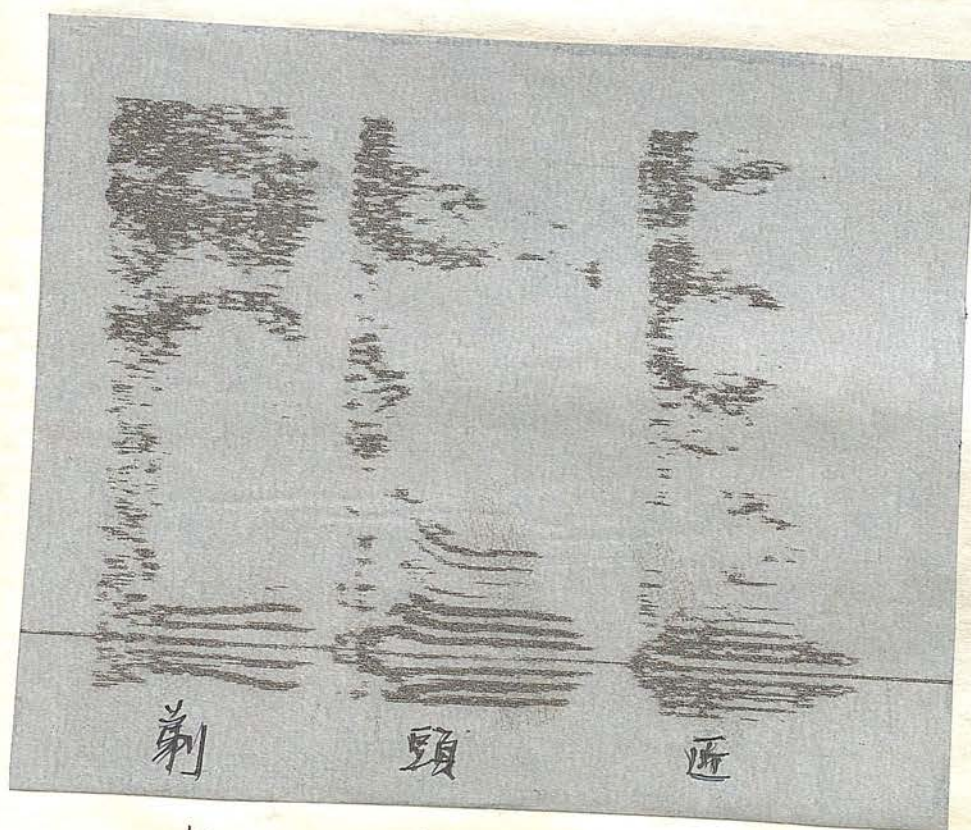


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Fig. 120



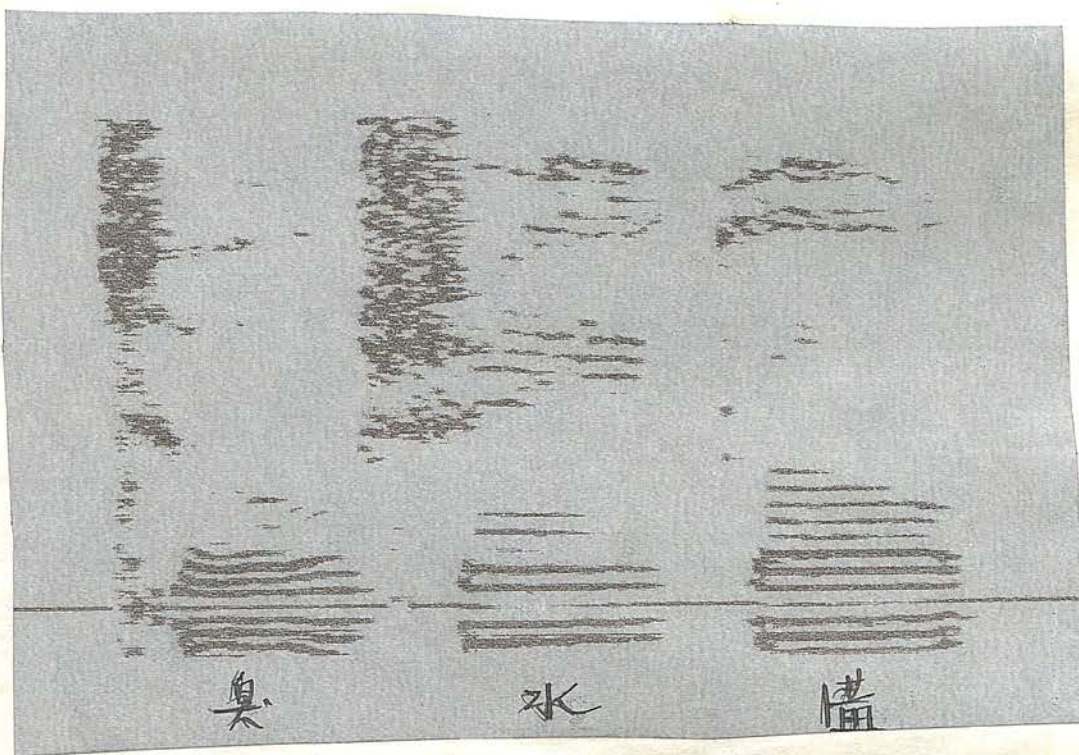
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Fig. 121





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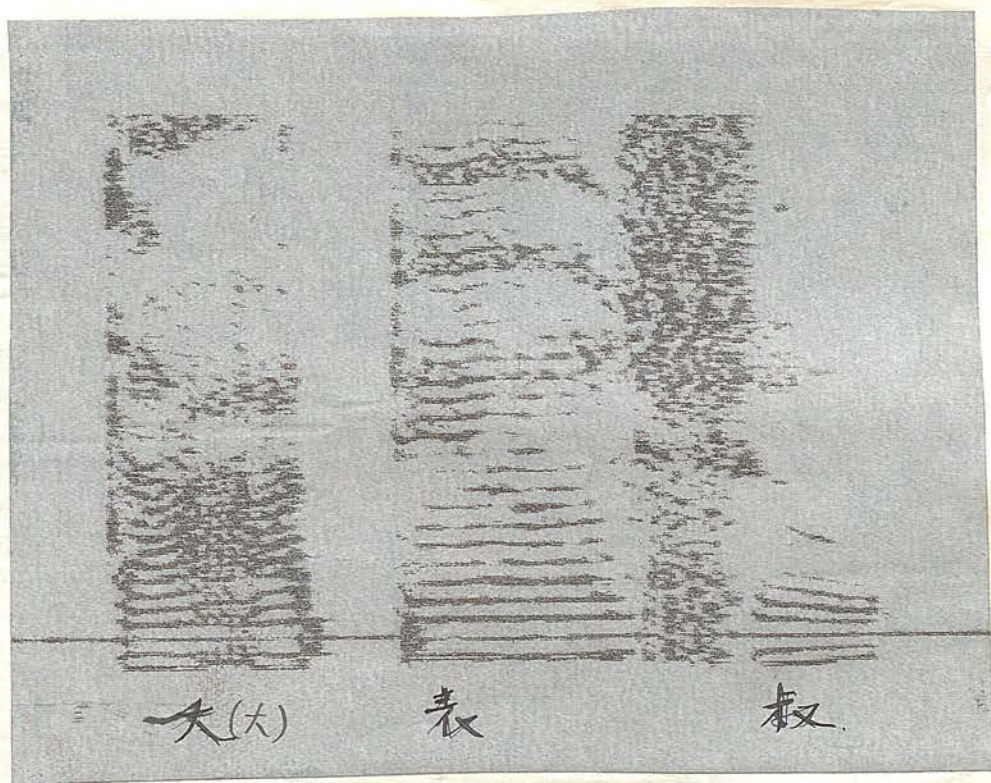
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Fig. 122



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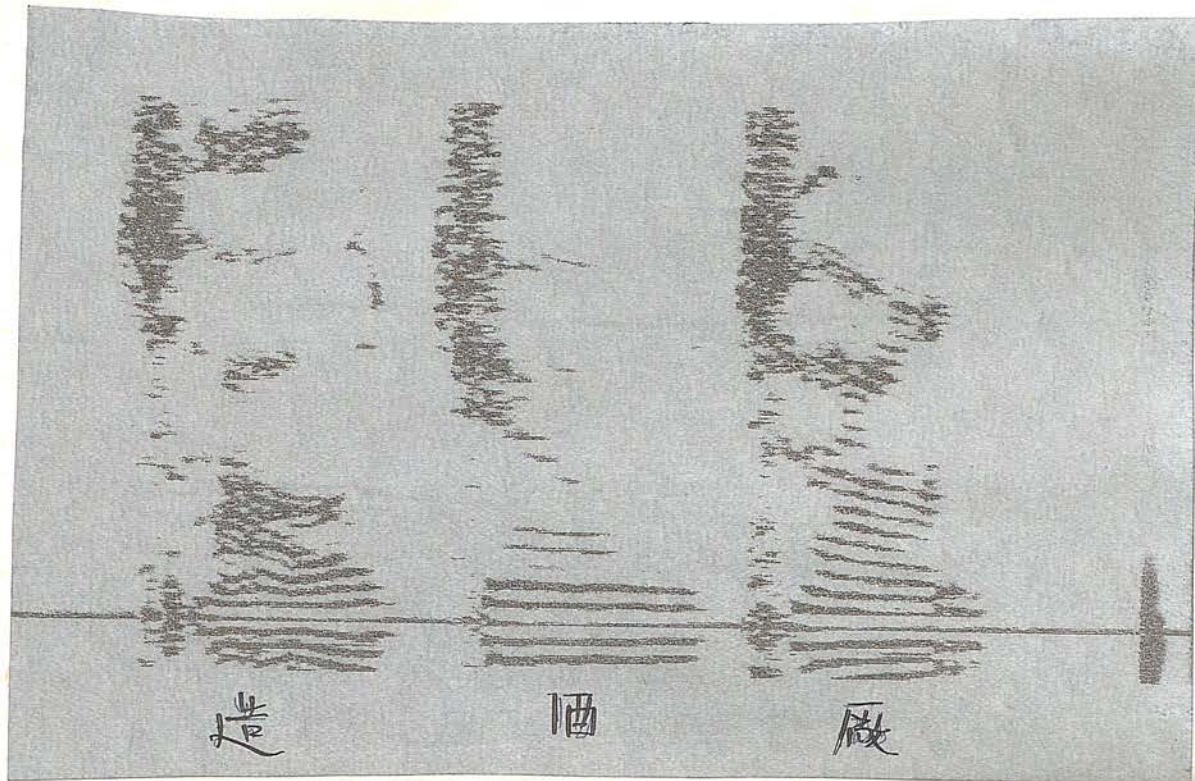
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Fig. 123



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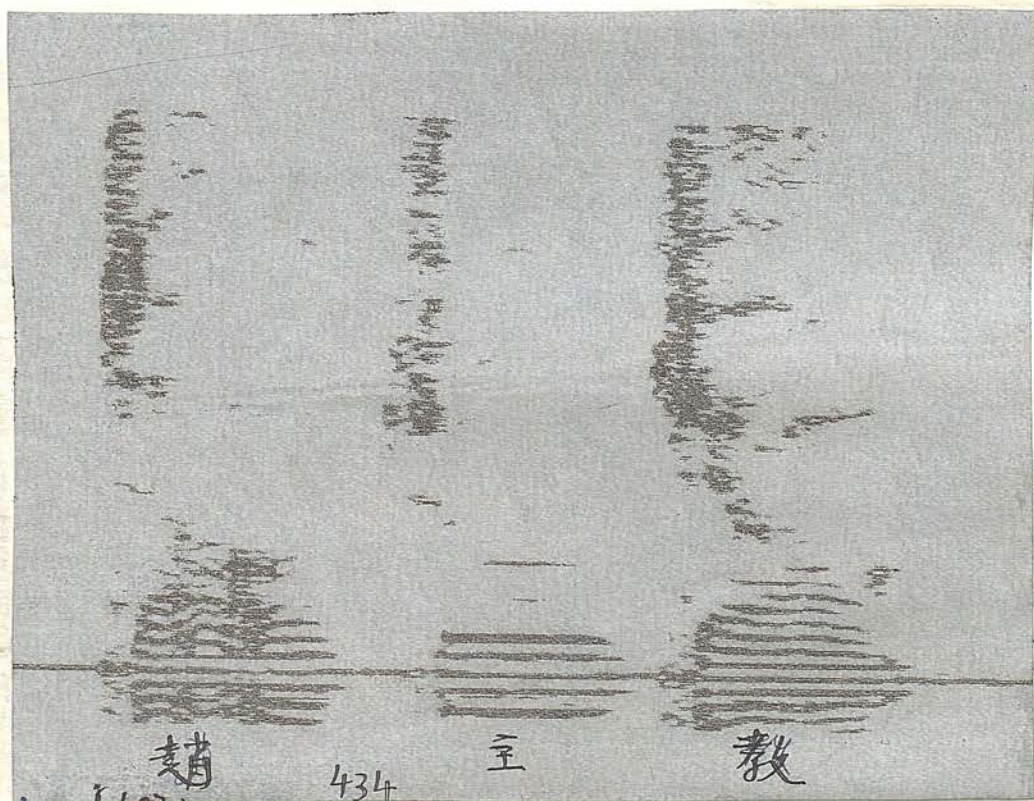
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Fig. 124



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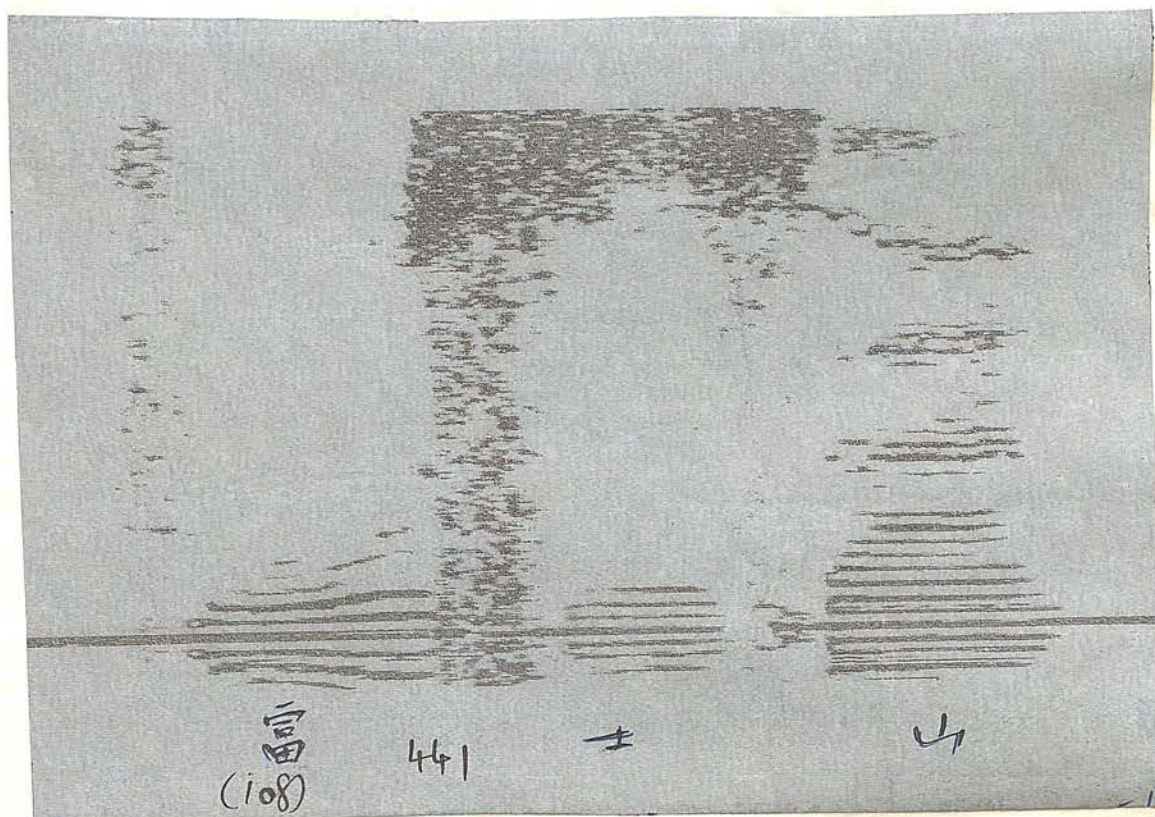
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Fig. 125



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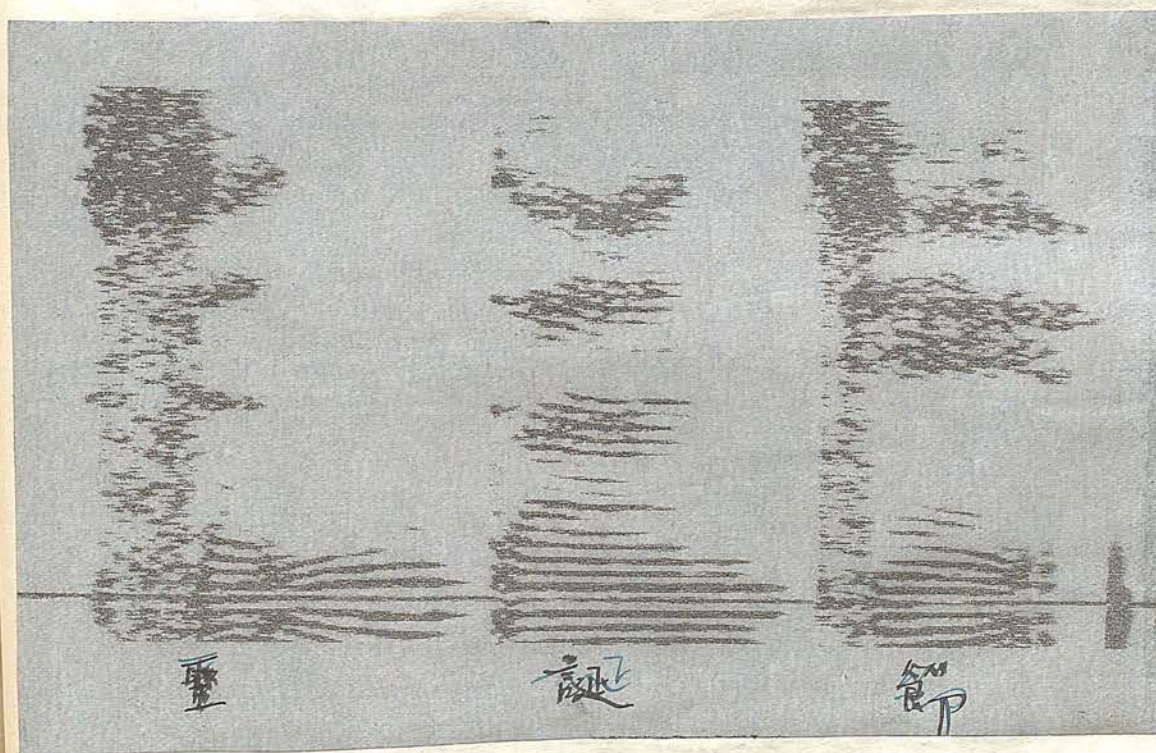
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Fig. 126



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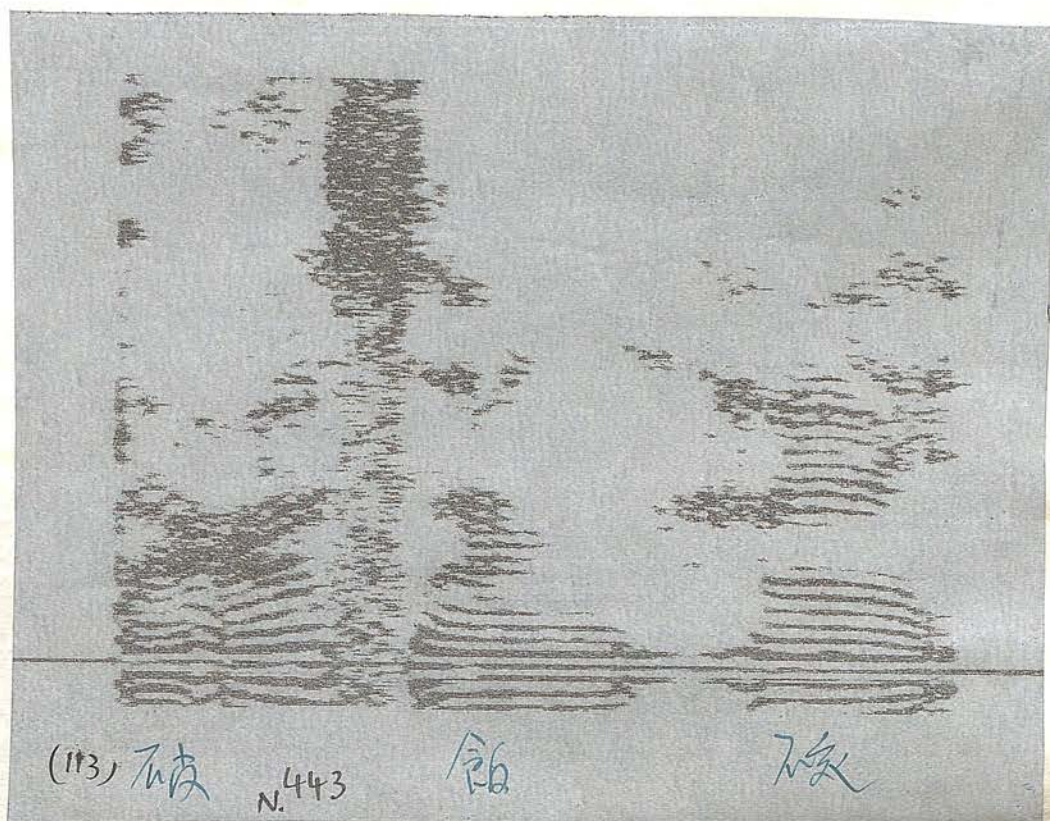
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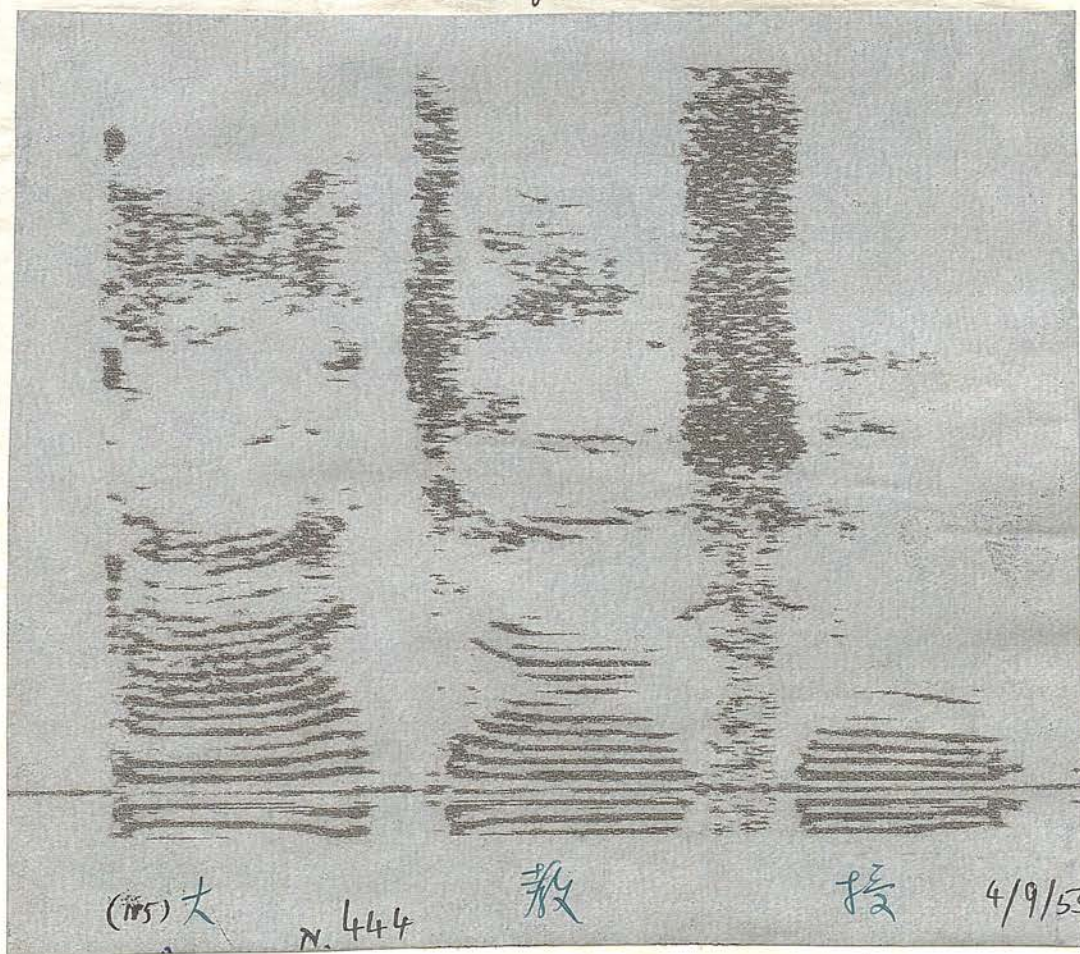
Fig. 127



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Fig. 128

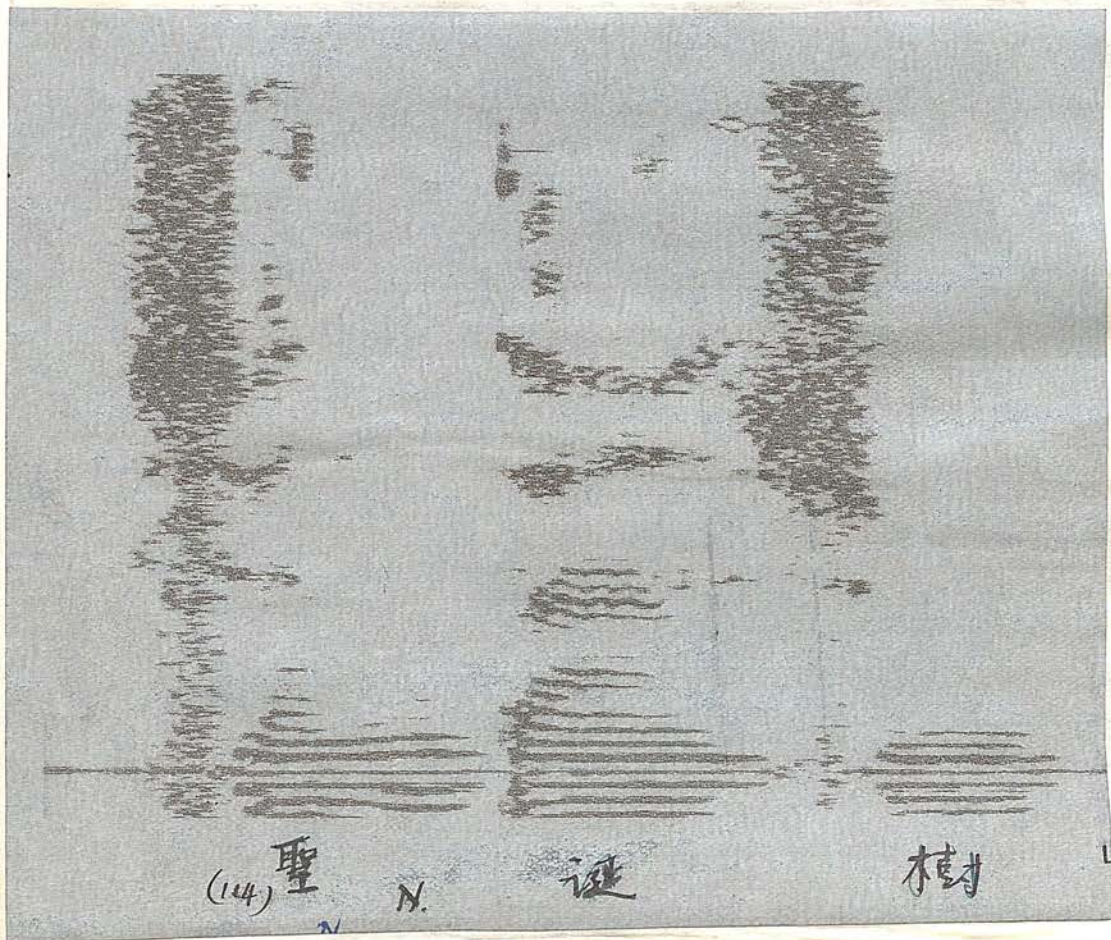
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Fig. 129

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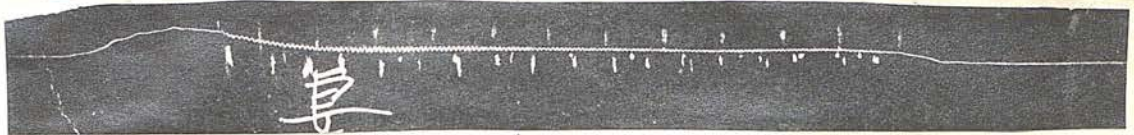


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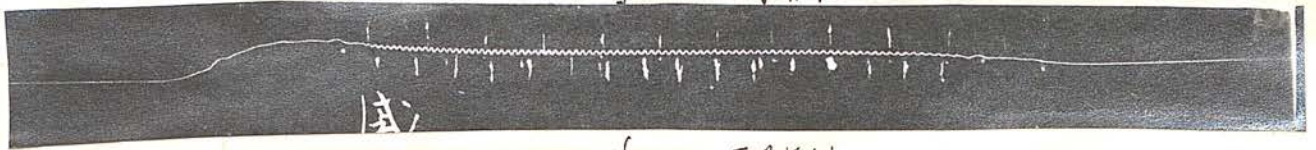
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Fig. 130



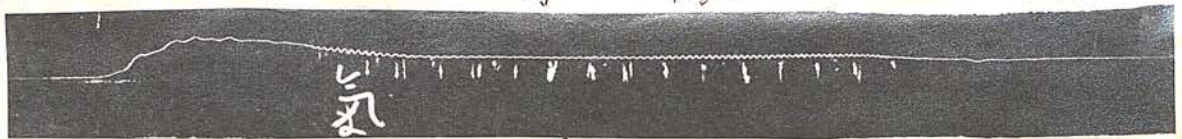
ti Fig. K.1a



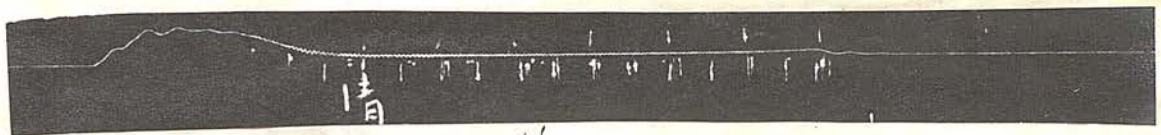
ti Fig. K.1b.



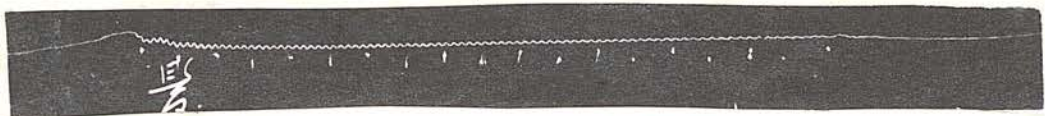
ti Fig. K.1c



ti Fig. K.1d



tin Fig. K.2a



fa Fig. K.2b



iau Fig. K.2c



iau Fig. K.2d

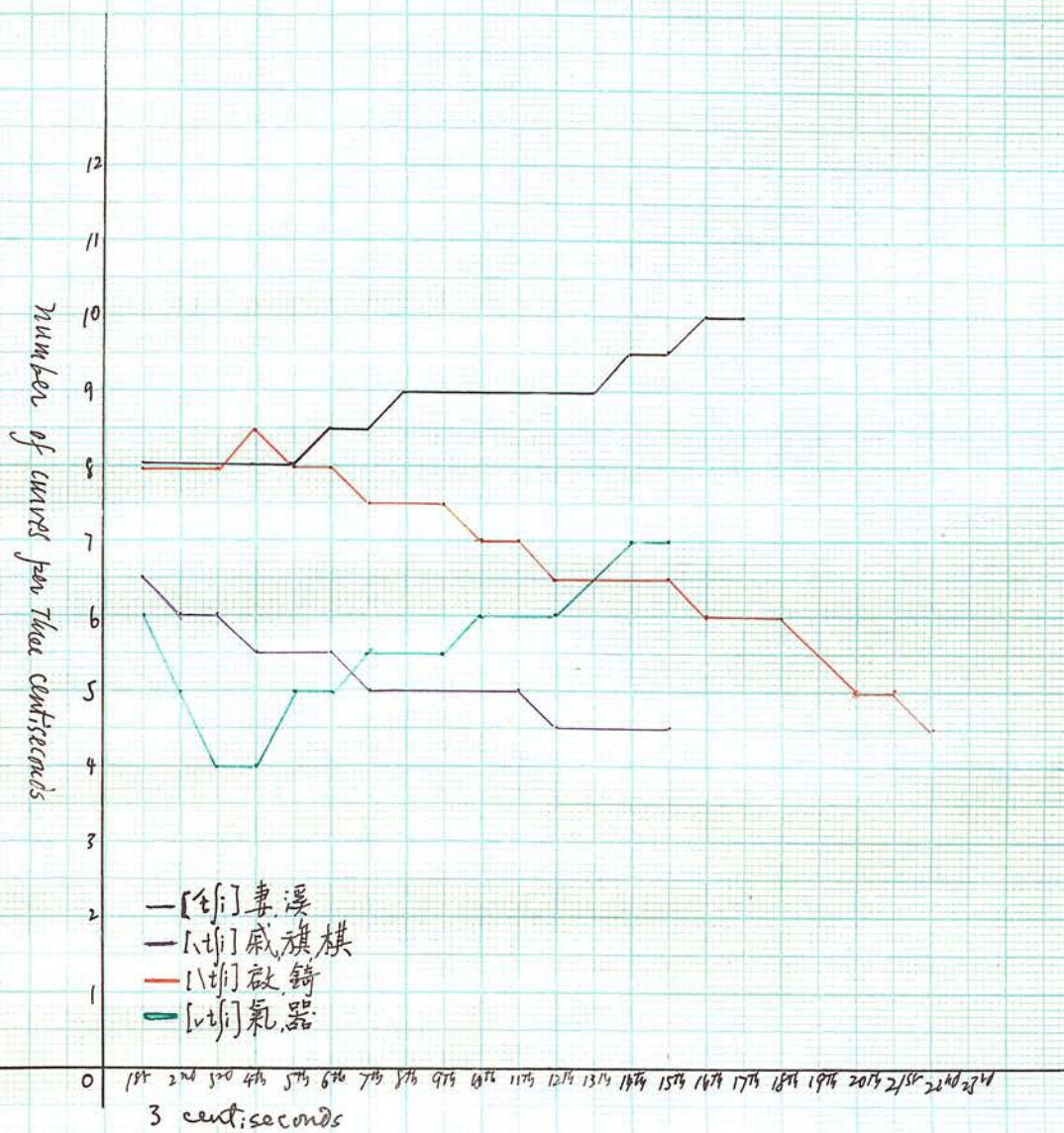


Fig. 94

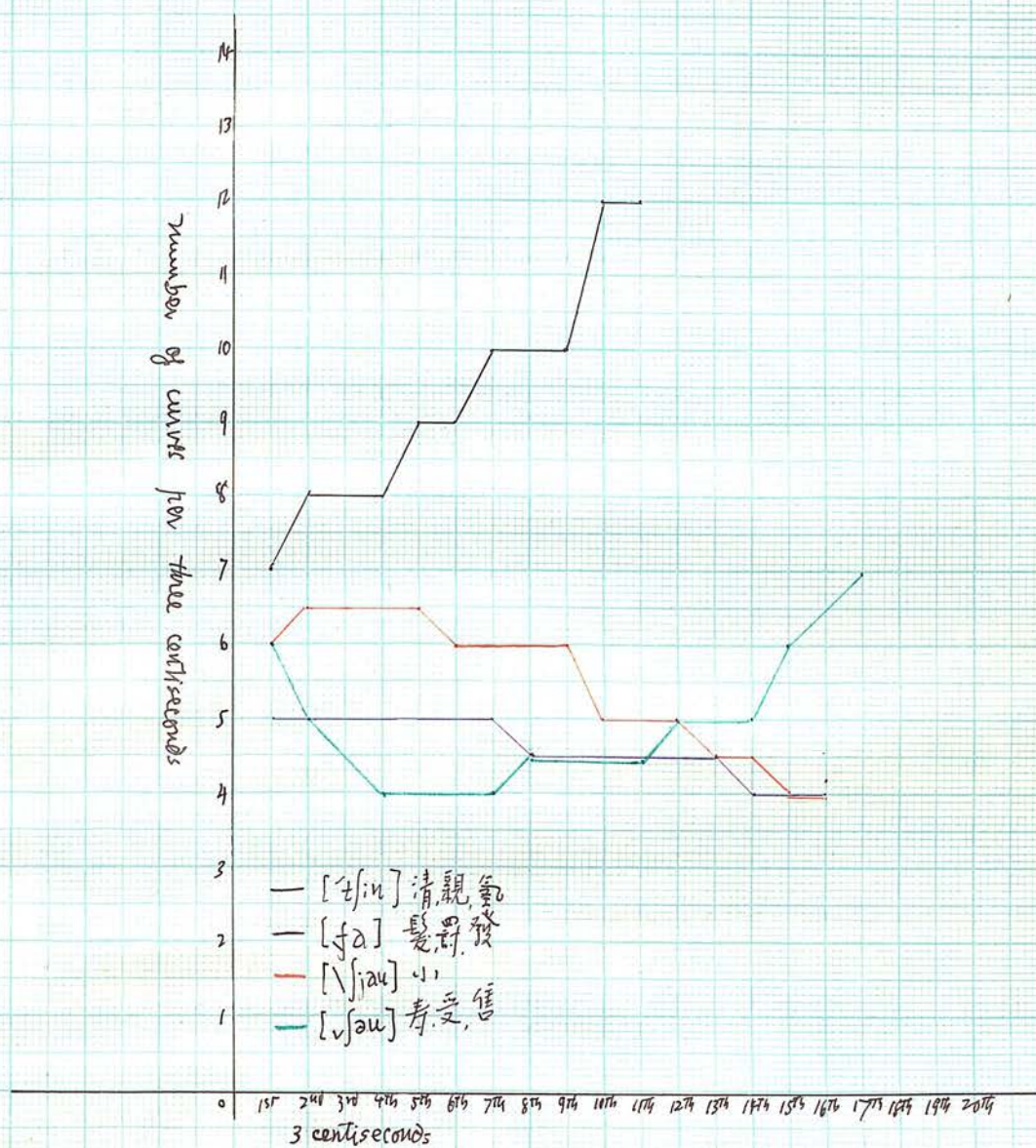
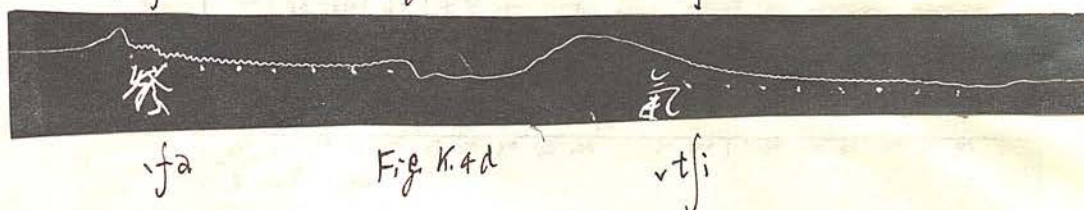
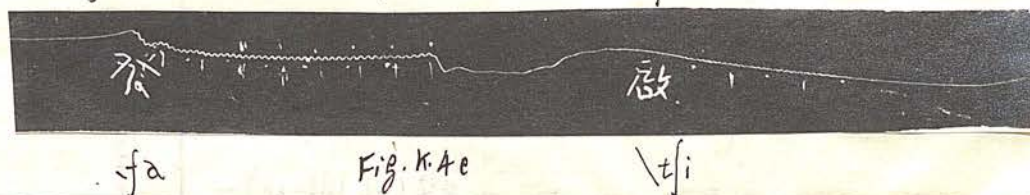
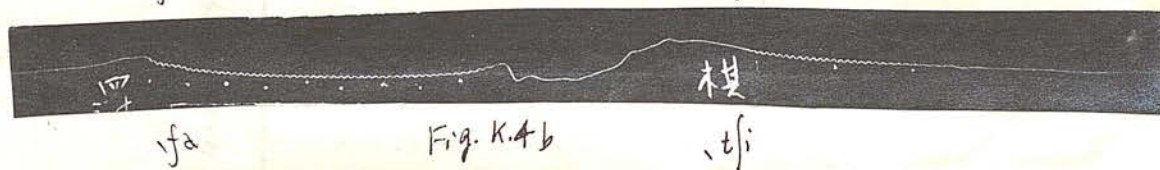
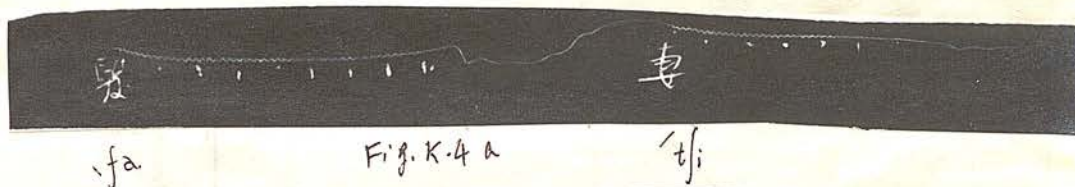
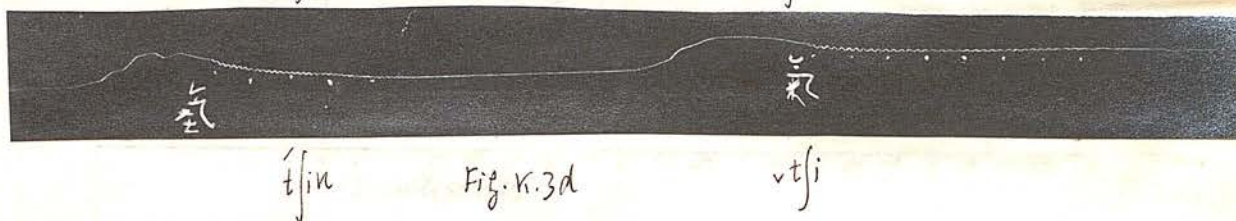
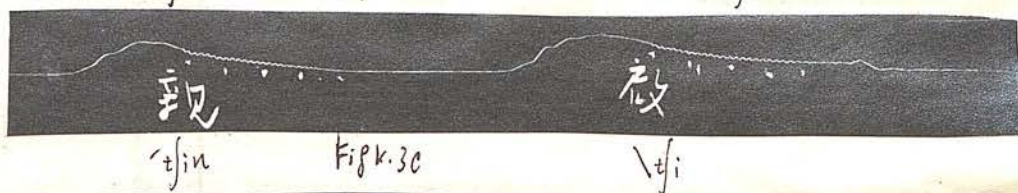
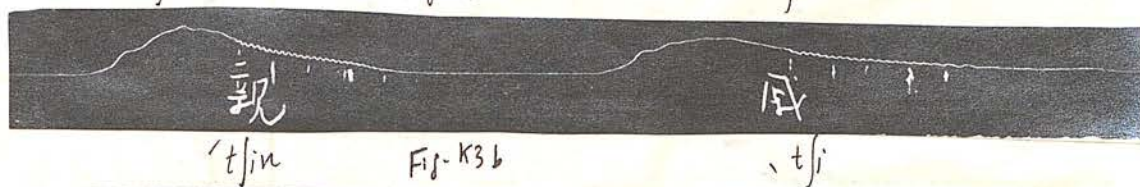


Fig. 95



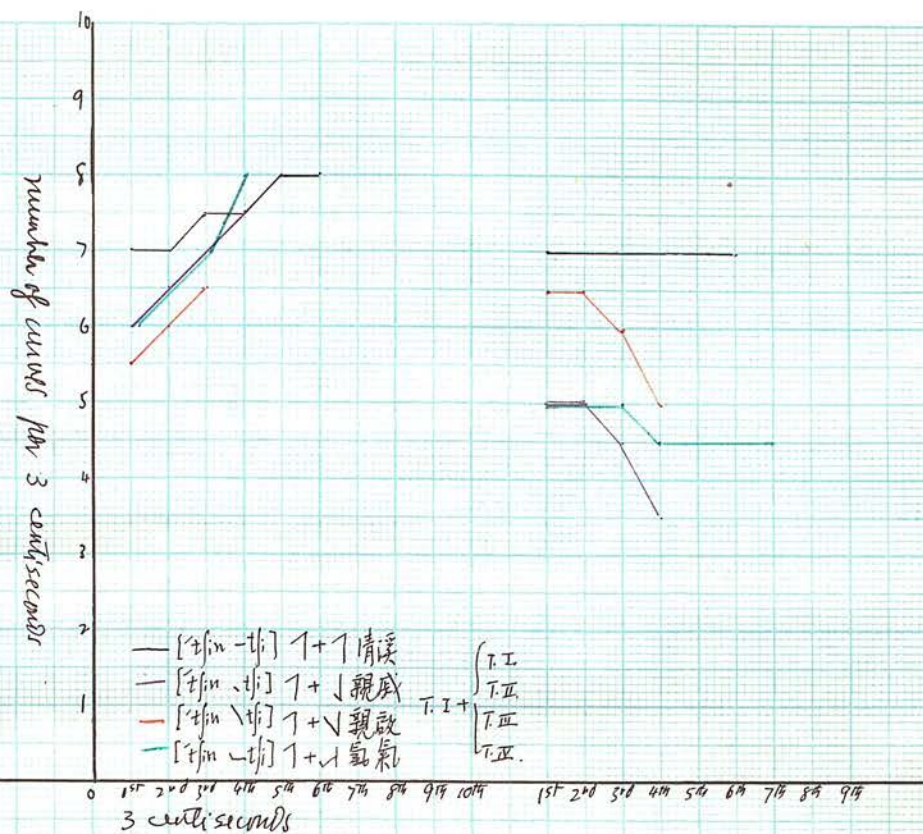


Fig. 8.6

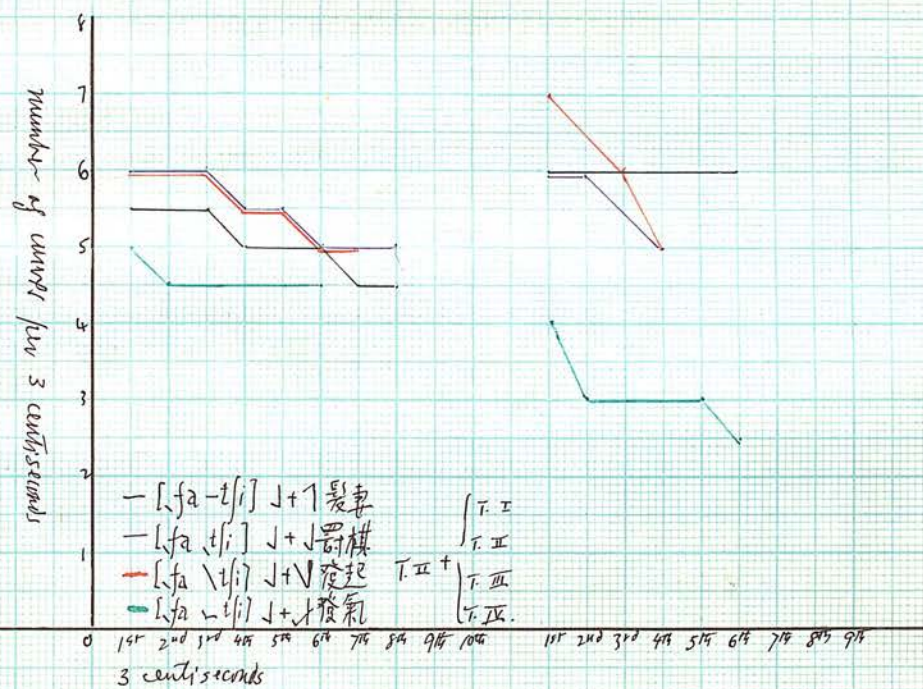
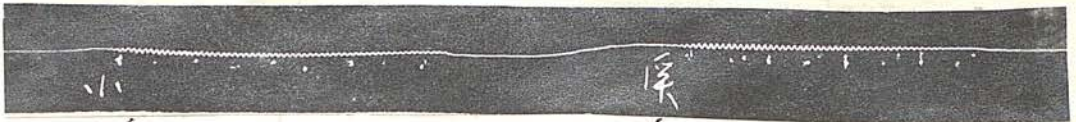


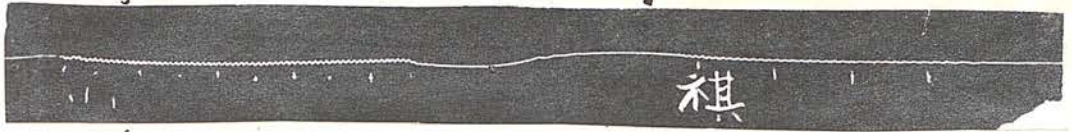
Fig. 8.7



viau

Fig. k.5a

tji



viau

Fig. k.5b

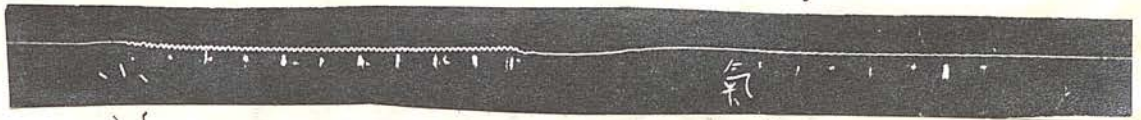
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Fig. k.5c

tji



viau

Fig. k.5d

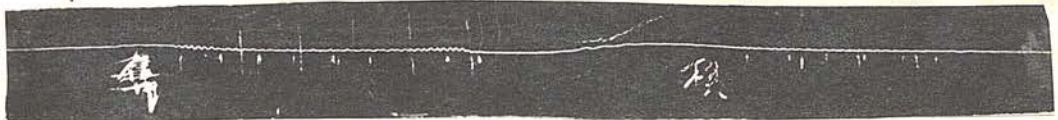
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vju

Fig. k.6a

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vju

Fig. k.6b

tji



vju

Fig. k.6c

tji



vju

Fig. k.6d

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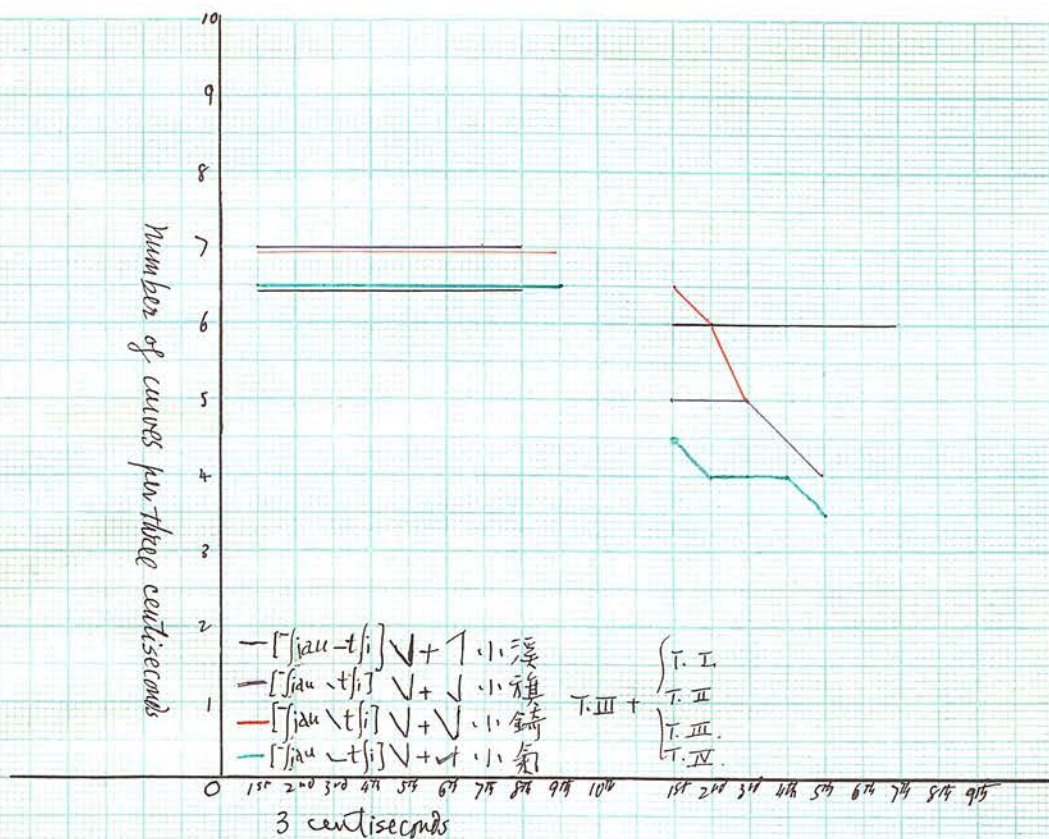


Fig. 88

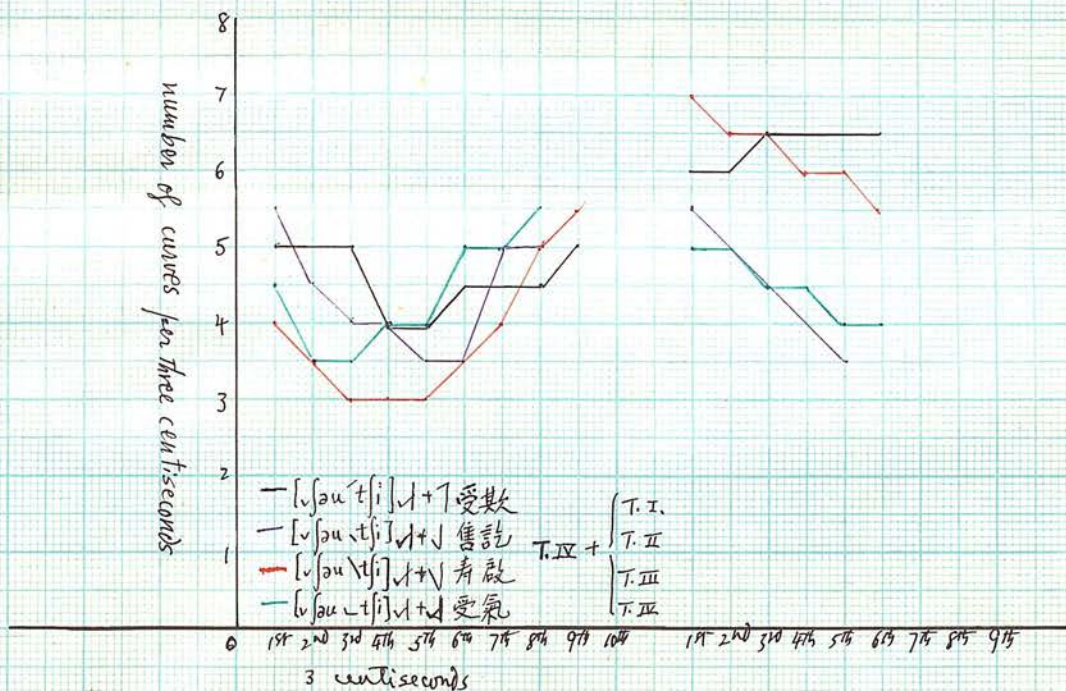


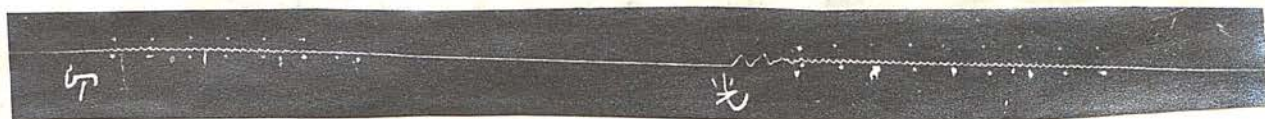
Fig. 89



v dʒiou

Fig. k. 7 a

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v in

Fig. k. 7 b

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v di

Fig. k. 7 c

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Fig. k. 8 a

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Fig. k. 8 b

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Fig. k. 8 c

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Fig. k. 9

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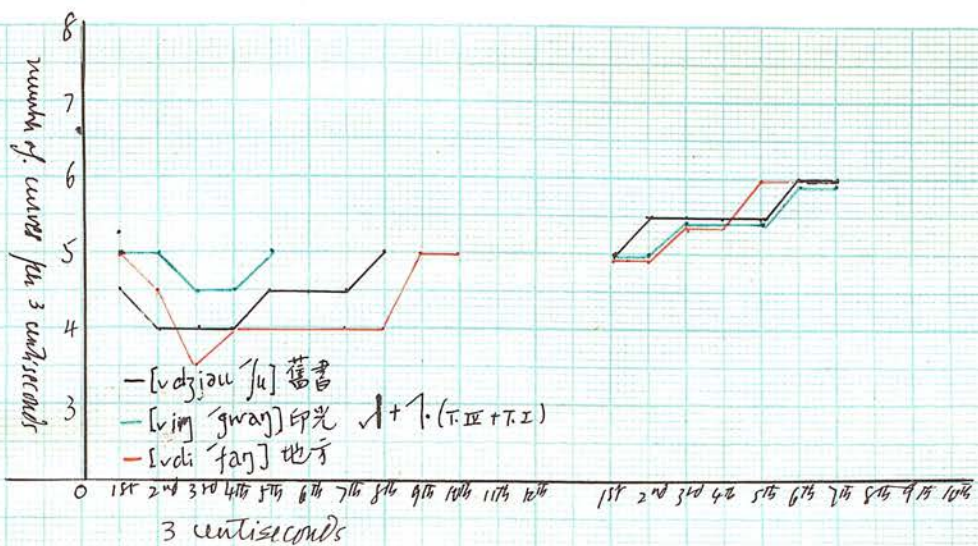


Fig. 9.10

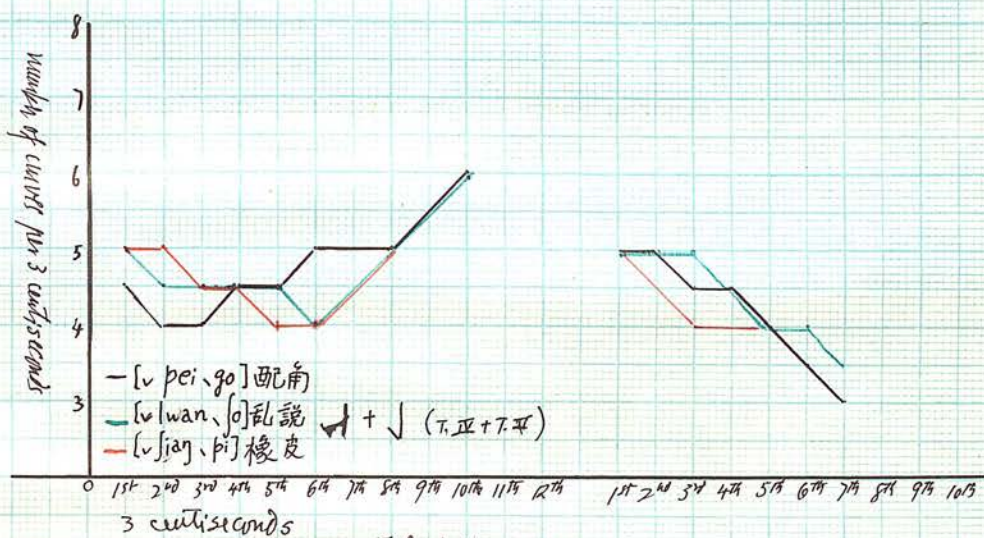


Fig. 9.11

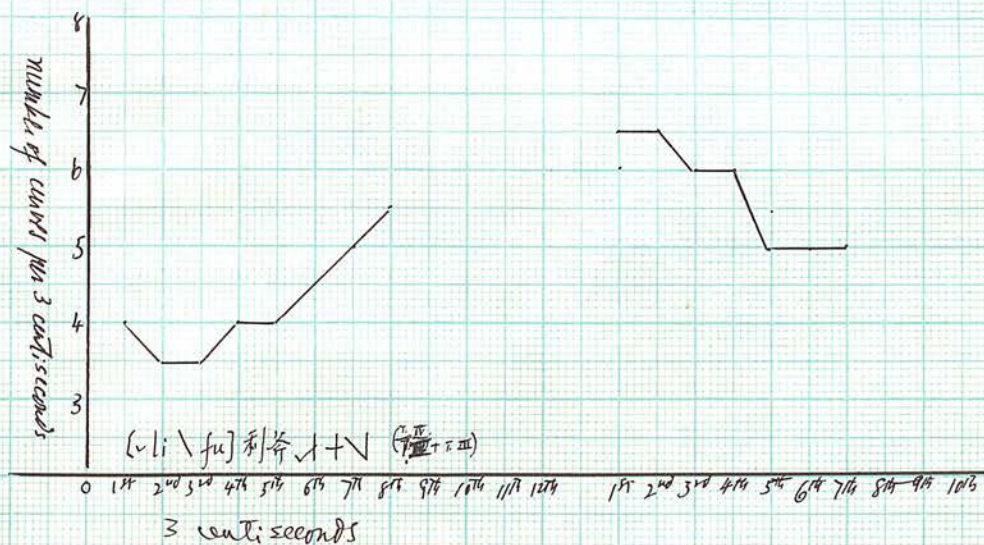
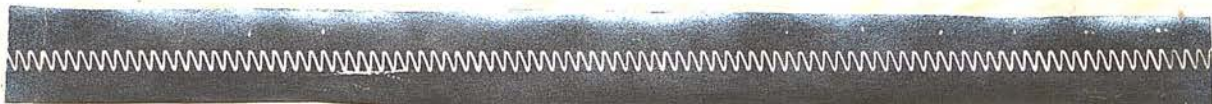


Fig. 9.12



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Fig. k. 10a

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Fig. k. 10b

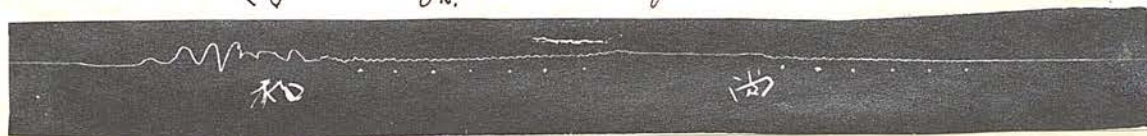
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Fig. k. 11a

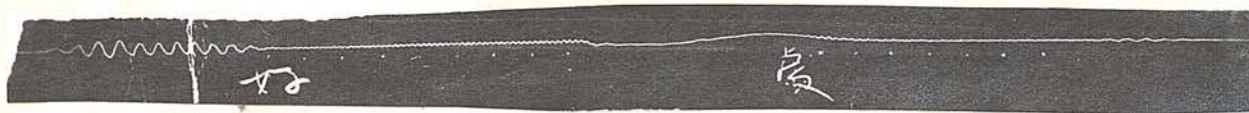
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Fig. k. 11b

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Fig. k. 12

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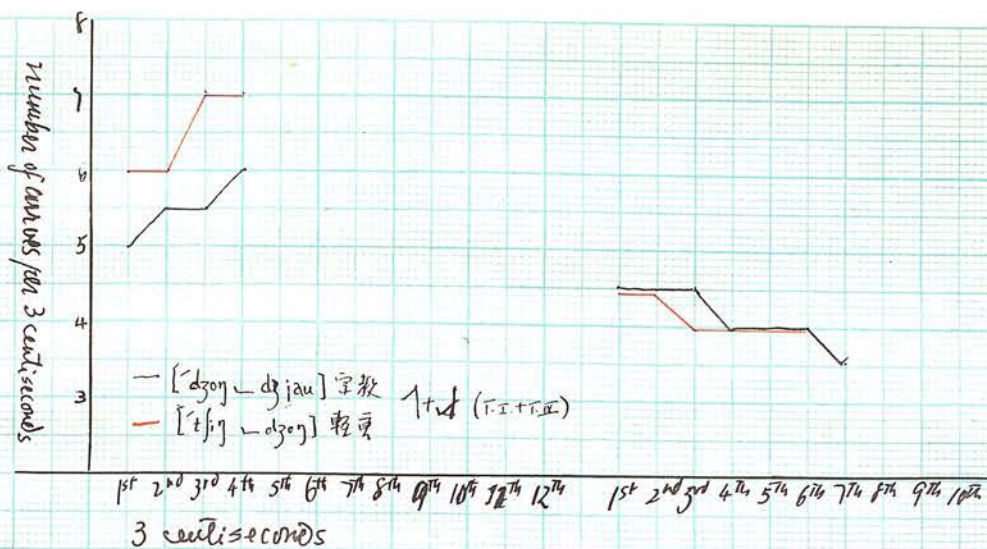


Fig. 9.13

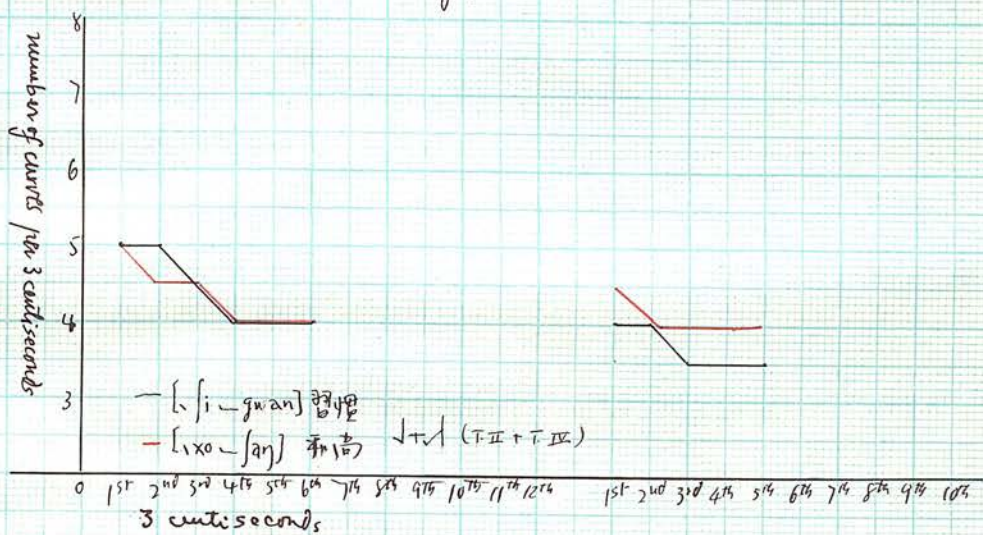


Fig. 9.14

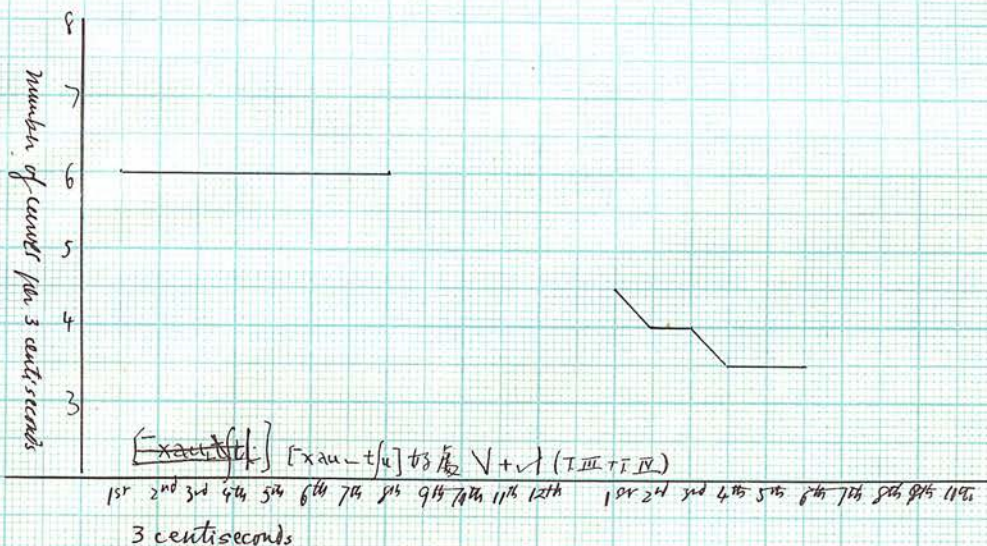


Fig. 9.15

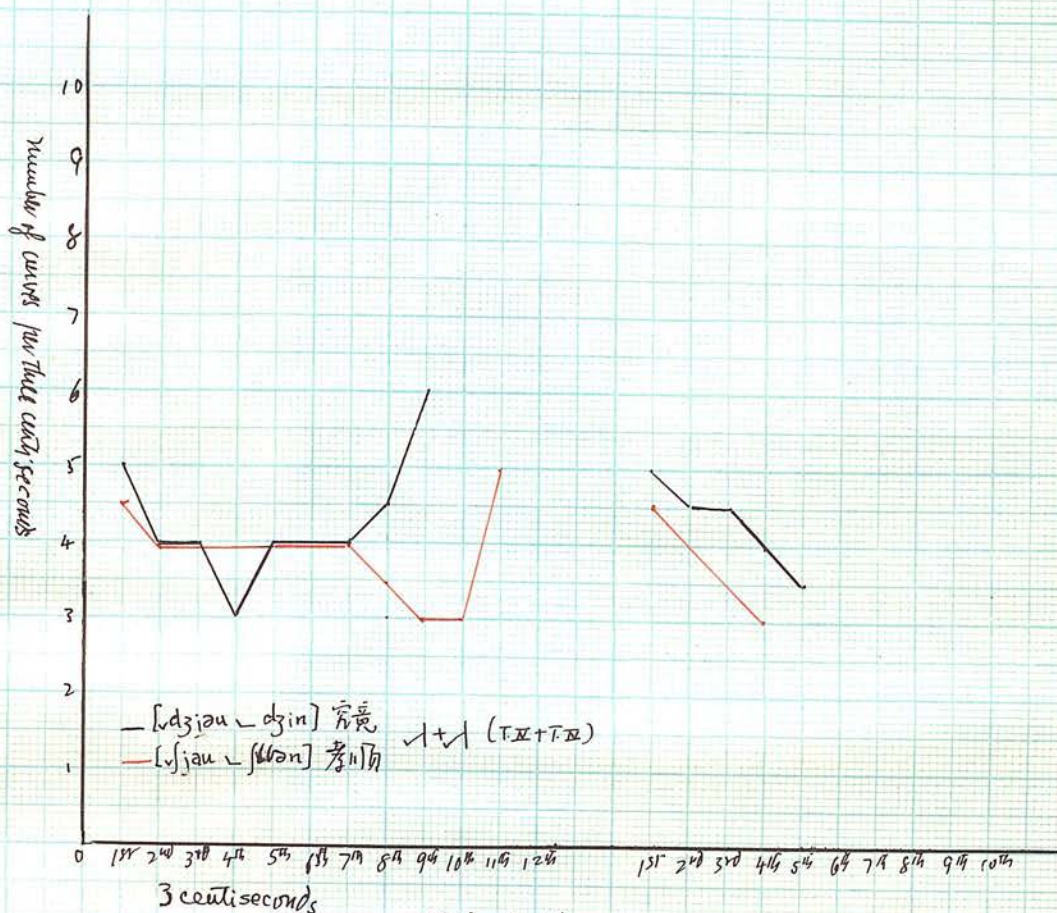


Fig. 9.16

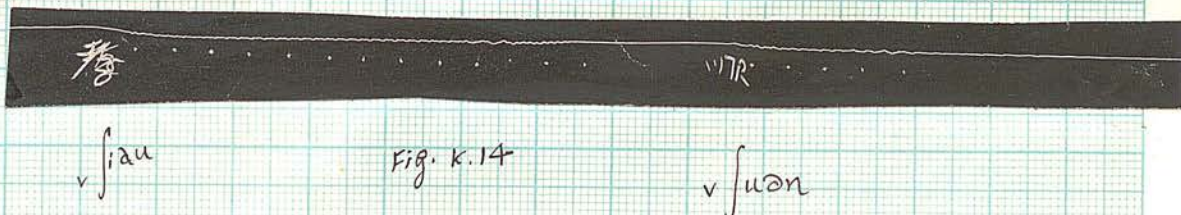
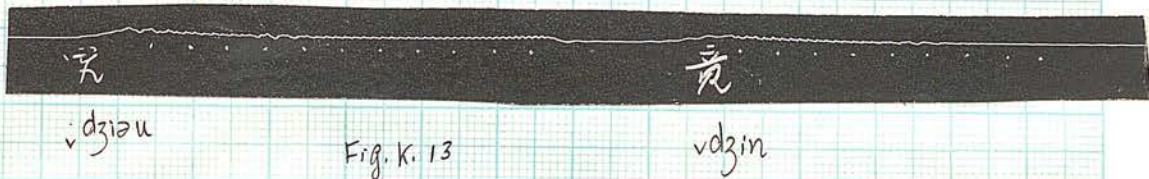
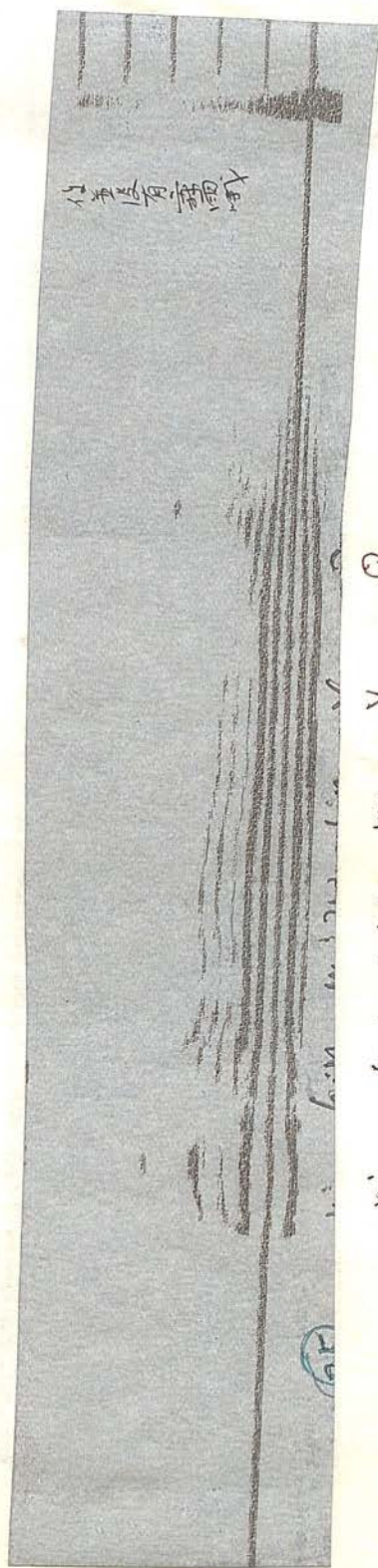


Fig. 131



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Fig. 132



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Fig. 133



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Fig. 134

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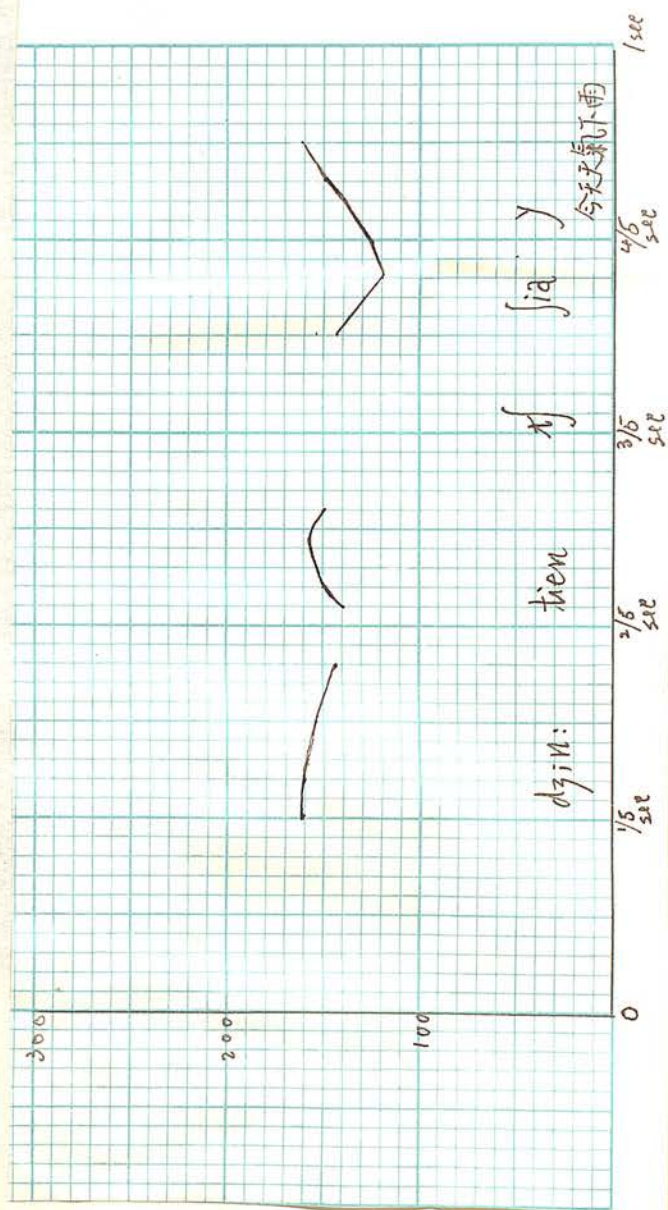
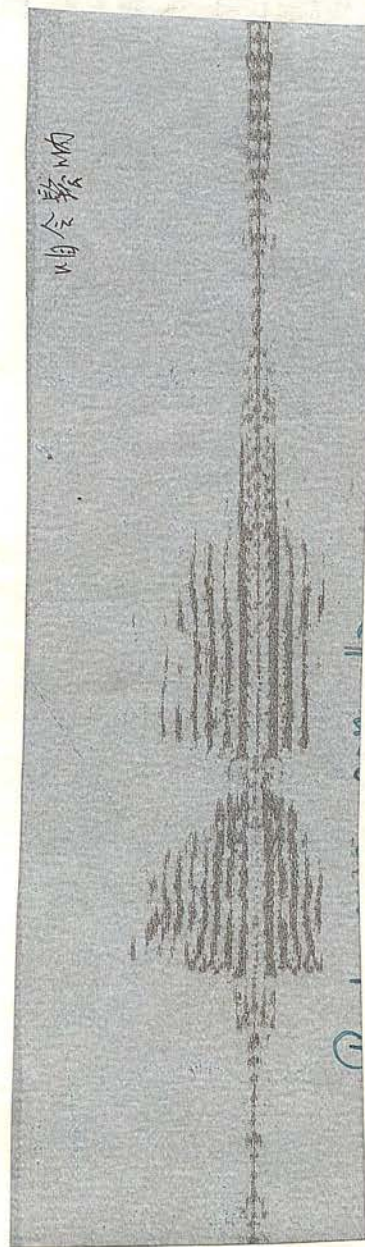
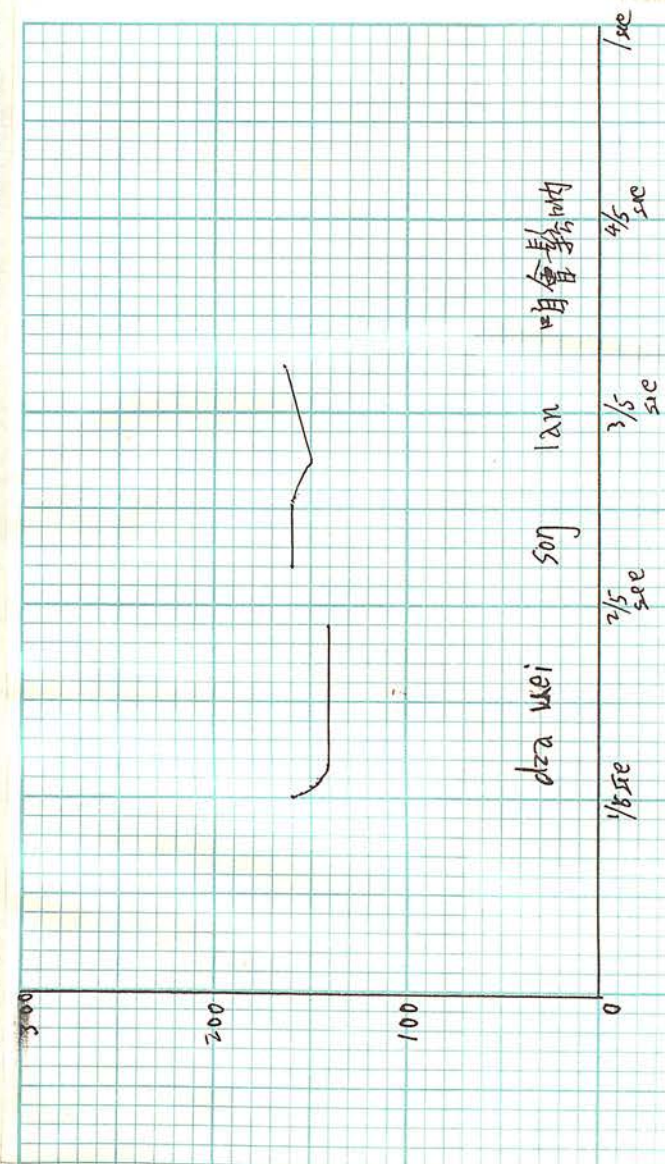


Fig. 135



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Fig. 13b



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Fig. 137

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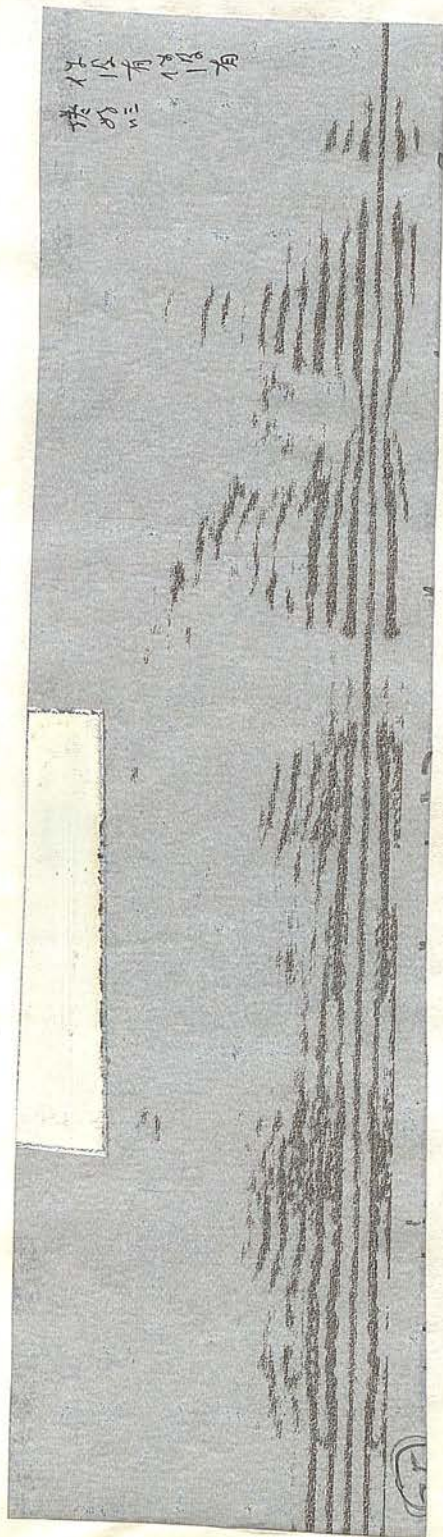
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Fig. 138



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Fig. 139



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Fig. 140

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Fig. 141

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Fig 142

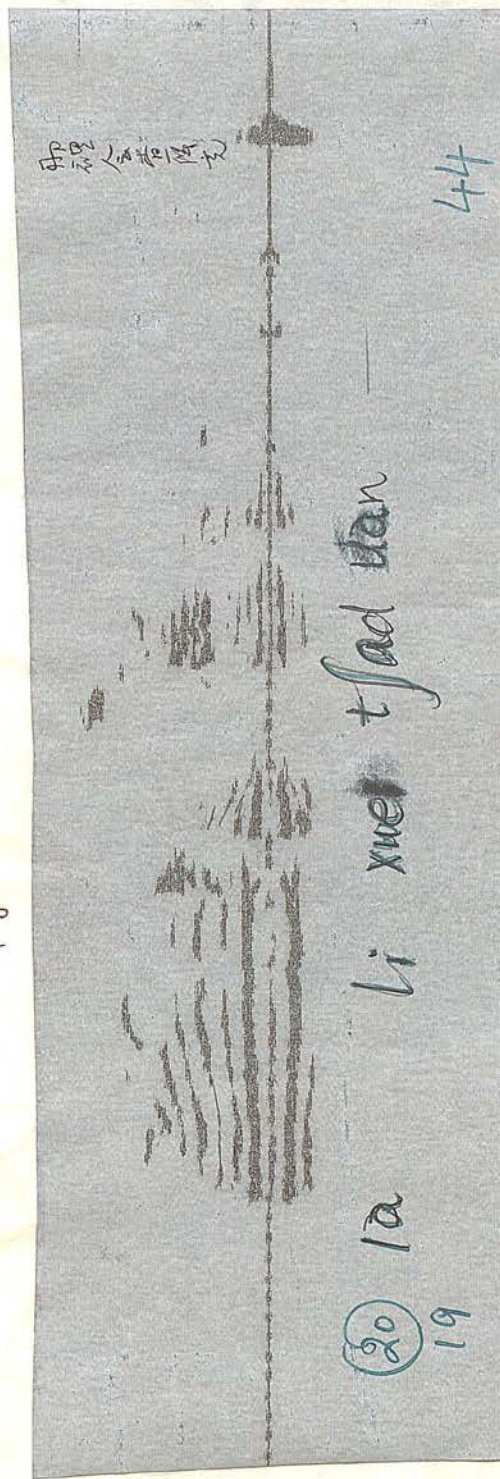


Fig. 143

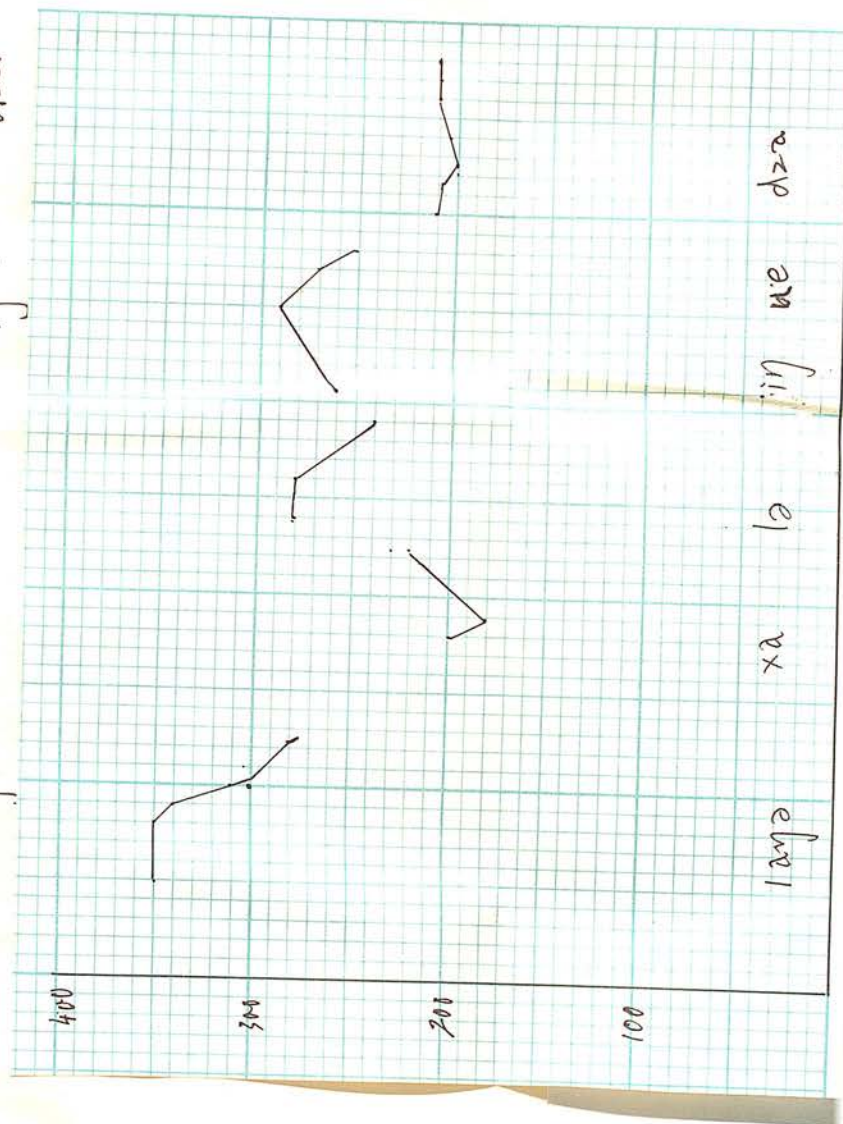


Fig. 144

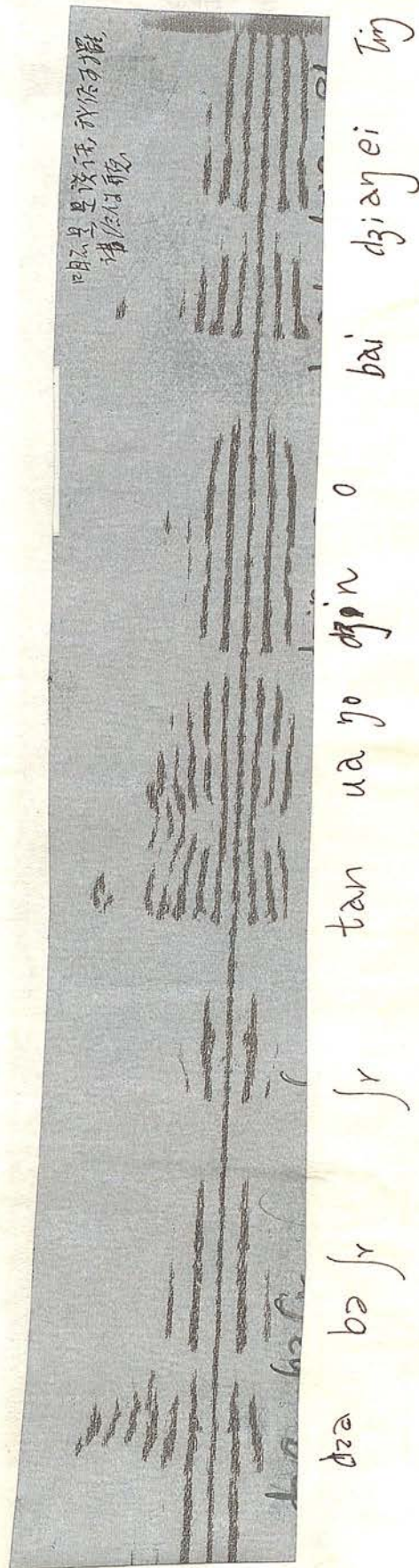


Fig. 145



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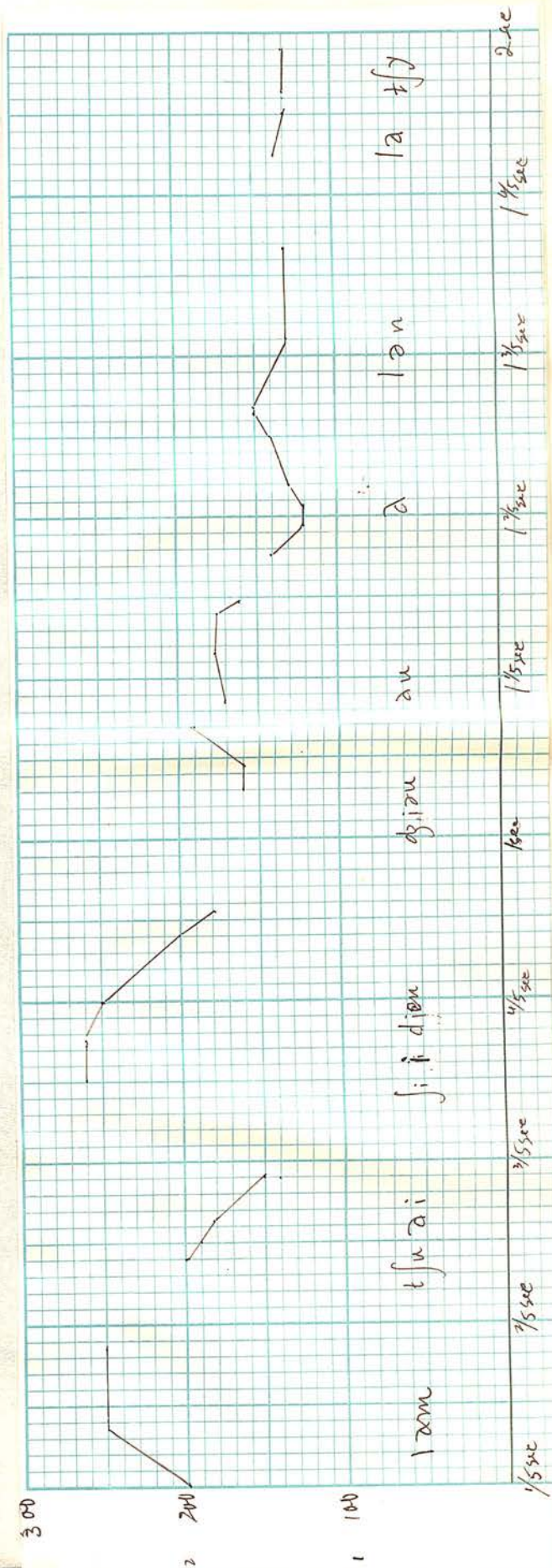


Fig. 146

